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Treasury Board of Canada  
Secrétariat

Secrétariat du Conseil du Trésor  
du Canada

Canada

# Government of Canada

## Enterprise Architecture Review Board (GC EARB)

Treasury Board Secretariat – P1819-248 Pay Rules Data Solution  
August 13, 2020

Presentation for:	EARB Appearance:	Contact Information:
<input type="checkbox"/> Information	<input type="checkbox"/> Initial	<p><b>Presenter(s):</b></p> <ul style="list-style-type: none"><li>• Fred Begley – A/ADM PMSP, <a href="mailto:Fred.Begley@tbs-sct.gc.ca">Fred.Begley@tbs-sct.gc.ca</a>, 613-868-4970</li><li>• Francois Brunet – Senior Director IMTD, <a href="mailto:Francois.Brunet@tbs-sct.gc.ca">Francois.Brunet@tbs-sct.gc.ca</a>, 613-462-3865</li></ul>

# Purpose of GC EARB Session

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- ▶ The purpose of this presentation is to provide GC EARB **information** on the business need for Pay Rules Data Solution and how TBS would be leveraging different technology to meet the need.

And, to seek for GCEARB endorsement.

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# Overview

## Project Overview

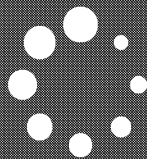
OCHRO is seeking to create a centralized repository of pay rules and supporting documentation that will be an accurate and authoritative source for use by all interested parties within the Government of Canada (GOC).

### Problem



- Pay rules are numerous, complex and not standard across collective agreements and other documents
- Access to pay rules data is fragmented across the government
- Planning, research and analysis process for collective bargaining (CB) is complex and labour intensive

### Need



A complete and accurate repository of pay rules that facilitates research and analysis and is accessible to OCHRO and all of GOC.

### Benefits

**Create**  
single pay rule  
source

**Provide**  
access to all  
stakeholders

**Facilitate**  
CB planning,  
analysis and  
negotiations

**Support**  
simplifying  
pay rules

**Ensure**  
data quality

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# Opportunity Statement

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Pay rules are:

## **Disorganized**

Number of pay rules are currently unknown, difficult to find and are written inconsistently

## **Inefficient**

Pay rules research requires manually reviewing many different documents

## **Opaque**

Difficult to determine impact of pay rule changes across collective agreements and other sources

## **Opportunity**

Create a single authoritative source of pay rules accessible to stakeholders.

The application will support:

- Searching and indexing
- Analyzing and categorizing
- Standardizing and reporting



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# Request – Detailed Information

## Recommendation

IMTD performed very thorough business need assessment and performed a solution option analysis that is considered in alignment to GOC digital standards. Based on analysis, the recommendation is to leverage an open source custom solution with intelligent search and machine learning

Pros:

- Leverage Microsoft text analytics technology
- Opportunity to use Platform as a Service (PaaS) for search capability
- Automate the data intake process

Cons:

- Additional investment required by leveraging new technology. Once implemented it would generate savings moving forward when adding new pay rules source documents.

## Anticipated Benefits

Rated the best option; optimally balancing cost, business value, and achievability.

Supports enterprise-wide desire to move from basic key-word search to intelligent search.

Machine learning replaces the most labour-intensive part of the pay rule identification process.

## Governance

### Departmental Governance Bodies

- Pay Rules has gone through the Resourcing Committee review and TBS Architecture review board assessment and has received endorsement.

### Business Owner

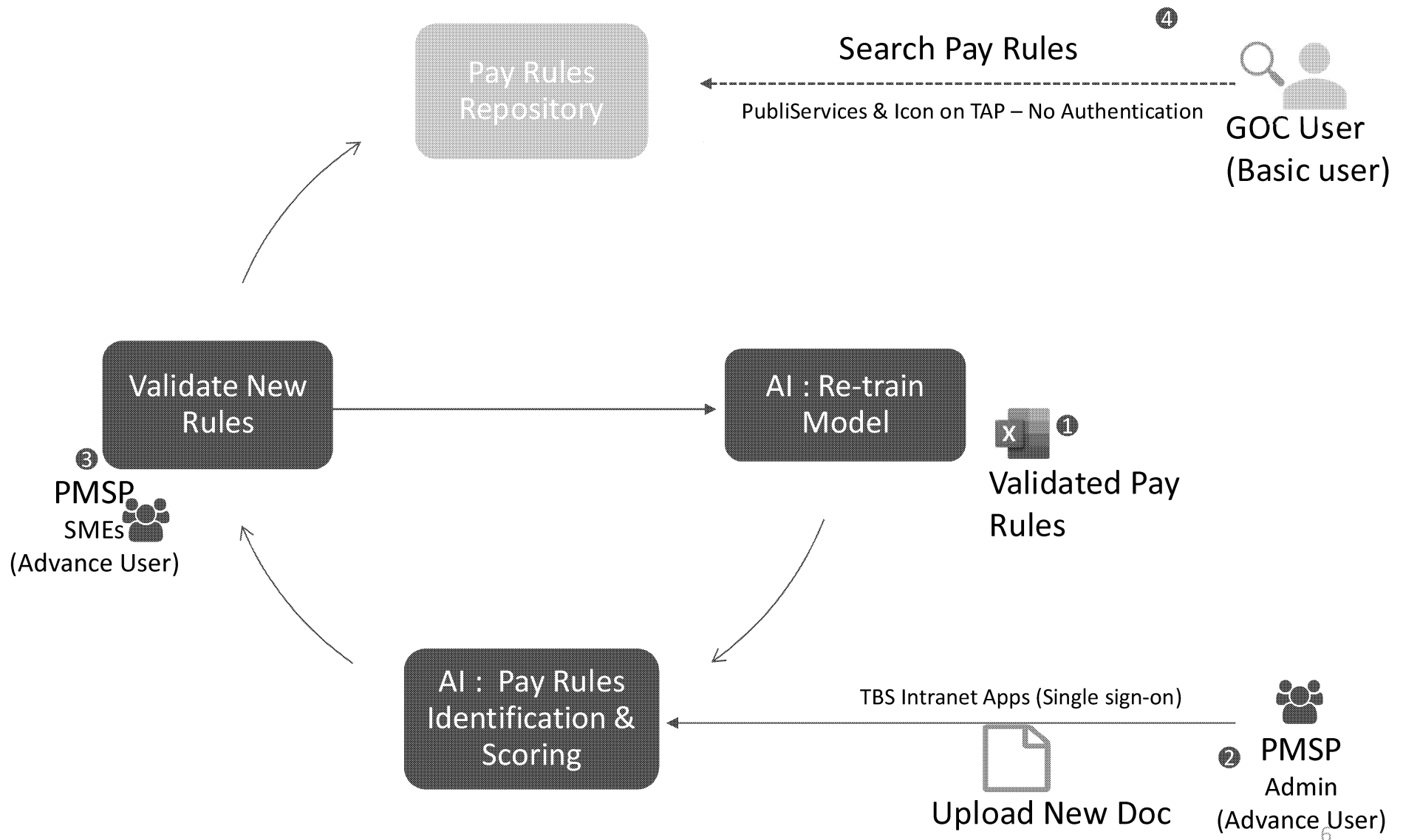
- People Management Systems and Processes (PMSP) within the Office of the Chief Human Resources Officer (OCRHO) is championing the Pay Rules project.

### Technical Owner

- TBS Information Management and Technology Directorate (IMTD) Technical team is championing the Project implementation.

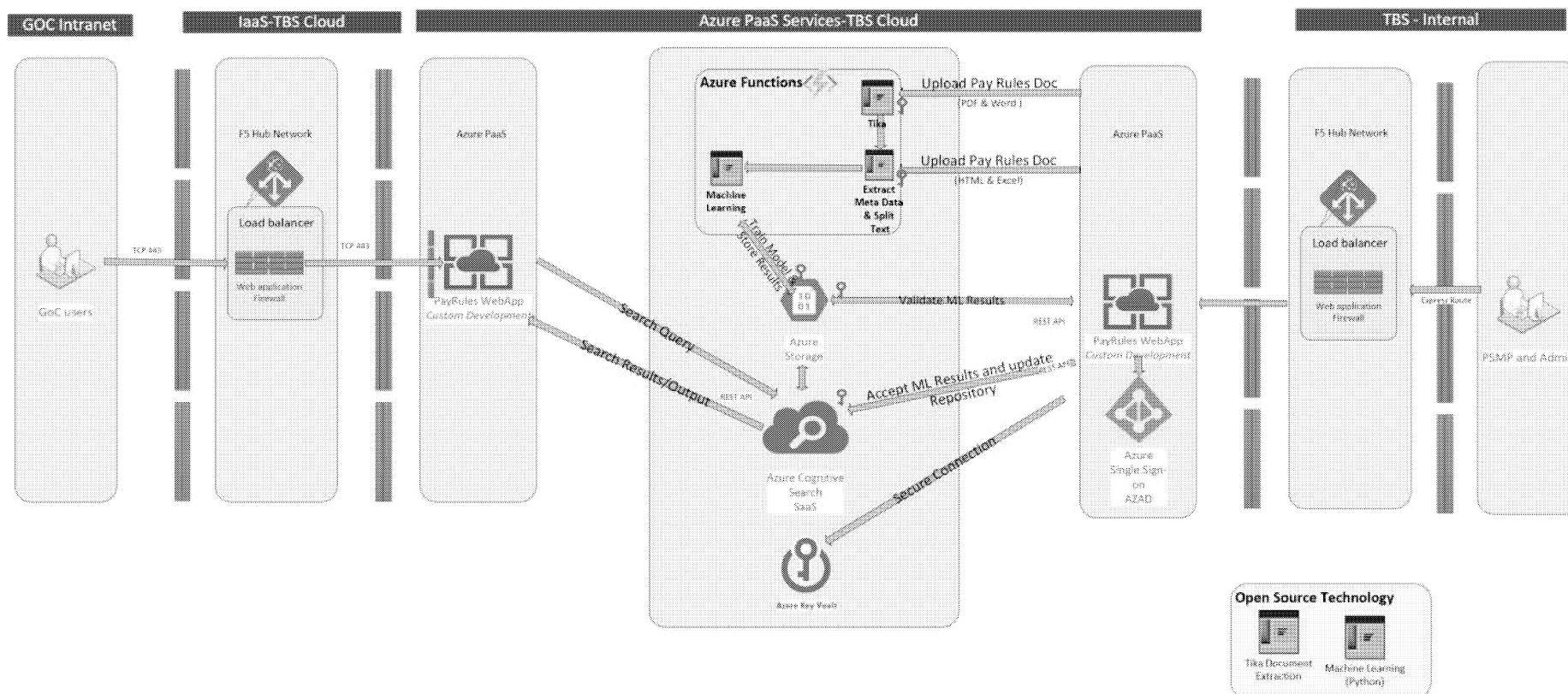
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# Pay Rules Solution - Overview



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# Target State Architecture - DIAGRAM



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# Risks & Mitigations

Project PCRA Score: N/A

Organization OPMCA Level: N/A

Risks	Mitigations	Prob.	Impact
1 Risk to quality as Machine Learning requires validated pay rule data to train the model		L	H

PCRA: Project Complexity and Risk  
OPMCA: Organizational Project Management Capacity

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Executive Summary

<input checked="" type="checkbox"/> Endorsement <input type="checkbox"/> Information	PCRA: N/A OPMCA: N/A	One time: \$512,000 On going: \$200,00	Overall: ▲
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Type of Cloud	<input checked="" type="checkbox"/> SaaS	<input checked="" type="checkbox"/> PaaS	<input type="checkbox"/> IaaS	<input type="checkbox"/> Not Applicable	Data Classification	<input checked="" type="checkbox"/> Unclassified	<input type="checkbox"/> Protected A	<input type="checkbox"/> Protected B	<input type="checkbox"/> Other
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Summary of Proposal

OCHRO is seeking endorsement for the creation of a centralized repository of pay rules and supporting documentation that will be an accurate and authoritative source for use by all interested parties within the GC.

Enterprise Architecture Assessment

▲	Business	<ul style="list-style-type: none"><li>Multi-disciplinary team: Web developer, Data Scientist, BA, UX expert, and QA</li><li>Application is being developed in both official languages and undergoing accessibility testing</li></ul>
▲	Information	<ul style="list-style-type: none"><li>Replacing a process that is currently using Excel spreadsheets stored in TBS GC Docs, and making the data more discoverable within TBS and available across the GC.</li><li>Over time, this system should help to standardize language across collective agreements and other related documents.</li><li>Data is stored in Azure Cognitive Search indexes and Azure Table Storage and is accessible via APIs that could in the longer term be opened up for interoperability if required.</li></ul>
▲	Application	
▲	Technology	
▲	Security & Privacy	<ul style="list-style-type: none"><li>PIA and SOS complete, unclassified data with no risks.</li></ul>

GC EA Recommendation

EA recommends EARB Endorsement of proposed architecture

Conditions

TBC

Architectural Alignment:

▲ Fully    ● Partially    ■ Not

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# ANNEX

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## APPENDIX 1

### GC Digital Standards

- **Required** for GC EA Assessment
- NOT to be part of Presentation

## APPENDIX 2

### GC Architectural Standards

- **Required** for GC EA Assessment
- NOT to be part of Presentation

## APPENDIX 3

### Additional Project Details

- **Required** for GC EA Assessment
- NOT to be part of Presentation

## APPENDIX 4

### Algorithmic Impact Assessment

- Complete **as required**
- NOT to be part of Presentation

## APPENDIX 5

### Exemption Request Form

- Complete **as required.**

## APPENDIX 1: Digital Alignment

▲	<b>1 Design with users</b> <ul style="list-style-type: none"> <li>• Research with users to understand their needs and the problems we want to solve.</li> <li>• Conduct ongoing testing with users to guide design and development.</li> </ul>	▲	<b>6 Build in accessibility from the start</b> <ul style="list-style-type: none"> <li>• Services should meet or exceed accessibility standards.</li> <li>• Users with distinct needs should be engaged from the outset to ensure what is delivered will work for everyone.</li> </ul>
▲	<b>2 Iterate and improve frequently</b> <ul style="list-style-type: none"> <li>• Develop services using agile, iterative and centered methods.</li> <li>• Continuously improve in response to user needs.</li> <li>• Try new things, start small and scale up.</li> </ul>	▲	<b>7 Empower staff to deliver better services</b> <ul style="list-style-type: none"> <li>• Make sure that staff have access to the tools, training and technologies they need.</li> <li>• Empower the team to make decisions throughout the design, build and operation of the service.</li> </ul>
■	<b>3 Work in the open by default</b> <ul style="list-style-type: none"> <li>• Share evidence, research and decision making openly.</li> <li>• Make all non-sensitive data, information, and new code developed in delivery of services open to the outside world for sharing and reuse under an open license.</li> </ul>	▲	<b>8 Be good data stewards</b> <ul style="list-style-type: none"> <li>• Collect data from users only once and reuse wherever possible.</li> <li>• Ensure that data is collected and held in a secure way so that it can easily be reused by others to provide services.</li> </ul>
▲	<b>4 Use open standards and solutions</b> <ul style="list-style-type: none"> <li>• Leverage open standards and embrace leading practices, including the use of open source software where appropriate.</li> <li>• Design for services and platforms that are seamless for Canadians to use no matter what device or channel they are using.</li> </ul>	▲	<b>9 Design ethical services</b> <ul style="list-style-type: none"> <li>• Make sure that everyone receives fair treatment.</li> <li>• Comply with ethical guidelines in the design and use of systems which automate decision making (such as the use of artificial intelligence).</li> </ul>
▲	<b>5 Address security and privacy risks</b> <ul style="list-style-type: none"> <li>• Take a balanced approach to managing risk by implementing appropriate privacy and security measures.</li> <li>• Make security measures frictionless so that they do not place a burden on users.</li> </ul>	▲	<b>10 Collaborate widely</b> <ul style="list-style-type: none"> <li>• Create multidisciplinary teams with the range of skills needed to deliver a common goal.</li> <li>• Share and collaborate in the open. Identify and create partnerships which help deliver value to users.</li> </ul>

Architectural Alignment:

▲ Fully    ● Partially    ■ Not

## APPENDIX 2: GC Architectural Standards

## UNCLASSIFIED / NON CLASSIFIÉ BUSINESS Alignment

(Please check ☒ all that apply)

1 - Align to the GC Business Capability model		HOW will this be achieved?
<input type="checkbox"/>	Define program services as business capabilities to establish a common vocabulary between business, development, and operation	
<input type="checkbox"/>	Identify capabilities that are common to the GC enterprise and can be shared and reused	
<input type="checkbox"/>	Model business processes using Business Process Modelling Notation (BPMN) to identify common enterprise processes	
2 - Design for Users First & Deliver with Multidisciplinary Teams		HOW will this be achieved?
<input checked="" type="checkbox"/>	<input type="checkbox"/> Focus on the needs of users, using agile, iterative, and user-centred methods	<ul style="list-style-type: none"> <li>Agile approach followed by the project team – working closely with client to ensure regular refinement and focus on</li> </ul>
<input checked="" type="checkbox"/>	<input type="checkbox"/> Conform to both accessibility and official languages requirements	<ul style="list-style-type: none"> <li>Application is being developed in both official languages and going through rigorous accessibility testing</li> </ul>
<input checked="" type="checkbox"/>	<input type="checkbox"/> Include all skillsets required for delivery, including for requirements, design, development, and operations	<ul style="list-style-type: none"> <li>Multi-disciplinary team involved with resources such as Web developer, Data Scientist, BA, UX expert and QA</li> </ul>
<input checked="" type="checkbox"/>	<input type="checkbox"/> Work across the entire application lifecycle, from development and testing to deployment and operations	<ul style="list-style-type: none"> <li>Project team ensuring all sprints are following application lifecycle and integration of key phase</li> </ul>
<input checked="" type="checkbox"/>	<input type="checkbox"/> Ensure quality is considered throughout the Software Development Lifecycle	<ul style="list-style-type: none"> <li>QA team engaged from beginning of the project to ensure all use cases are considered for validation phase.</li> </ul>
<input checked="" type="checkbox"/>	<input type="checkbox"/> Ensure accountability for privacy is clear	<ul style="list-style-type: none"> <li>The application doesn't include any personal information, a Statement of Sensitivity was completed as well as a Privacy Impact Assessment.</li> </ul>
	<input type="checkbox"/> Encourage and adopt Test Driven Development (TDD) to improve the trust between Business and IT	



## APPENDIX 2: GC Architectural Standards

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## BUSINESS Alignment

(Please check ☒ all that apply)



3 - Design Systems to be Measurable and Accountable	HOW will this be achieved?
<input type="checkbox"/> Publish performance expectations for each IT service	
<input type="checkbox"/> Make an audit trail available for all transactions to ensure accountability and non-repudiation	
<input type="checkbox"/> Establish business and IT metrics to enable business outcomes	
<input checked="" type="checkbox"/> Apply oversight and lifecycle management to digital investments through governance	<ul style="list-style-type: none"> <li>▪ The project has gone through multiple layers of governance. Which include: <ul style="list-style-type: none"> <li>• TBS Resource Committee; approval received for Gate 1 and 3</li> <li>• CIO Steering Committee meeting on a monthly basis with CIO and Assistant Deputy Minister</li> <li>• CIO Monthly project meeting</li> <li>• Department Architecture Review Board</li> <li>• Department Application Architecture Working group</li> <li>• Department Data Architecture Working Group</li> </ul> </li> </ul>

## APPENDIX 2: GC Architectural Standards

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## INFORMATION Alignment

(Please check ☒ all that apply)

4 – Data Collection	HOW will this be achieved?
<input type="checkbox"/> Ensure data is collected in a manner that maximizes use and availability of data	<ul style="list-style-type: none"> <li>Data is not collected in this project, it is extracted from different data sources such as collective agreements, and legislated documents.</li> </ul>
<input type="checkbox"/> Ensure data collected aligns to existing enterprise and international standards	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<input type="checkbox"/> Where enterprise or international standards don't exist, develop Standards in the open with key subject matter experts	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<input type="checkbox"/> Ensure collection of data yields high quality data as per data quality guidelines	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<input type="checkbox"/> Ensure data is collected through ethical practices supporting appropriate citizen and business-centric use	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<input type="checkbox"/> Data should only be purchased once and should align with international standards	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<input type="checkbox"/> Where necessary, ensure collaboration with department/ agency data stewards/ custodians, other levels of government, & Indigenous people	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
5 – Data Management	HOW will this be achieved?
<input type="checkbox"/> Demonstrate alignment with enterprise and departmental data governance and strategies	<ul style="list-style-type: none"> <li>Data is not being collected in this application. Data that is being extracted is following TBS Data Architecture working group standards</li> <li>Data is being automatically extracted from a variety of documents and then manually validated by SMEs to ensure quality before being made accessible to users across the GOC.</li> <li>This is replacing a process that is currently using Excel spreadsheets stored in TBS GC Docs, and making the data more discoverable within TBS and available across the GOC.</li> <li>Over time, this system should help to standardize language across collective agreements and other related documents.</li> </ul>
<input type="checkbox"/> Ensure accountability for data roles and responsibilities	<ul style="list-style-type: none"> <li>There are three roles in the system, GOC Users, Admin, and SMEs. GOC users have read access to all validated data by being logged into the GC Intranet. A small number of users in OCHRO will have access to upload files and/or validate data, authenticated via TBS Single Sign-On. The system will log information about who validated a rule and who uploaded the document.</li> </ul>
<input type="checkbox"/> Design to maximize data use and availability	<ul style="list-style-type: none"> <li>The validated data will be available to everyone with access to GC Intranet.</li> </ul>

## APPENDIX 2: GC Architectural Standards

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## INFORMATION Alignment

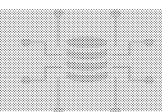
(Please check ☒ all that apply)

6 – Data Storage		HOW will this be achieved?
<input checked="" type="checkbox"/>	<input type="checkbox"/> Ensure data is stored in a secure manner in accordance with the National Cyber Security Strategy, and the Privacy Act	<ul style="list-style-type: none"> <li>Data is unclassified and not sensitive and will be stored in compliance with TBS policies.</li> <li>Authentication is via Single Sign On and no personal information is stored in the application.</li> </ul>
<input checked="" type="checkbox"/>	<input type="checkbox"/> Follow existing retention and disposition schedules	<ul style="list-style-type: none"> <li>Team working closely with information management to make sure retention and disposition schedule are respected for pay rules data.</li> <li>We are not storing the original documents for retention reasons. Client is currently determining appropriate retention and disposition schedules for the extracted data.</li> </ul>
	<input type="checkbox"/> Ensure data is stored in a way to facilitate easy data discoverability, accessibility and interoperability	<ul style="list-style-type: none"> <li>This tool provides a flexible search capability for pay rules extracted from a variety of documents in order to facilitate discoverability and accessibility of pay rule information.</li> <li>Data is stored in Azure Cognitive Search indexes and Azure Table Storage and is accessible via APIs that could in the longer term be opened up for interoperability if required.</li> </ul>
7 – Data Sharing		HOW will this be achieved?
	<input type="checkbox"/> Data should be shared openly by default as per the Directive on Open Government	<ul style="list-style-type: none"> <li>Most of the source data documents are open to the public on Canada.ca or other organizational websites (OCHRO had to request documents via email from many smaller organizations). The application is intended for GOC Users.</li> </ul>
	<input type="checkbox"/> Ensure government-held data can be combined with data from other sources enabling interoperability and interpretability through for internal and external use	<ul style="list-style-type: none"> <li>Our dataset combines data from several sources.</li> <li>Data is accessed via APIs that could in the longer term be opened up for interoperability if required, and if so could be combined with other sources.</li> </ul>
	<input type="checkbox"/> Reduce the collection of redundant data	<ul style="list-style-type: none"> <li>We are primarily extracting data from existing sources with some mark up during the validation process, and using machine learning to reduce the mark up burden.</li> </ul>
	<input type="checkbox"/> Reuse existing data where possible	<ul style="list-style-type: none"> <li>We are primarily reusing existing data.</li> </ul>
	<input type="checkbox"/> Encourage data sharing and collaboration	<ul style="list-style-type: none"> <li>This project facilitates data sharing and collaboration across the GOC by making data on individual pay rules available that currently exists only in TBS GCDocs and a variety of unstructured documents.</li> </ul>

## APPENDIX 2: GC Architectural Standards

## UNCLASSIFIED / NON CLASSIFIÉ APPLICATION Alignment

(Please check ☒ all that apply)

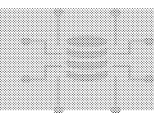


	8- Use open standards and solutions by default	HOW will this be achieved?
<input checked="" type="checkbox"/>	<input type="checkbox"/> Where possible, use open standards and open source software first.	<ul style="list-style-type: none"> <li>Team leveraging open source application TIKa for text extraction and Python for Machine Learning.</li> </ul>
	<input type="checkbox"/> If an open source option is not available or does not meet user needs, favour platform-agnostic COTS over proprietary COTS, avoiding technology dependency, allowing for substitutability and interoperability	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
	<input type="checkbox"/> If a custom-built application is the appropriate option, by default any source code written by the government must be released in an open format via Government of Canada websites and services designated by the Treasury Board of Canada Secretariat	<ul style="list-style-type: none"> <li>Custom-built code for the interface only, nothing reusable for others.</li> </ul>
	<input type="checkbox"/> All source code open must be released under an appropriate open source software license	<ul style="list-style-type: none"> <li>Using .NetCore nugets available on .net cloud framework.</li> </ul>
	<input type="checkbox"/> Expose public data to implement Open Data and Open Information initiatives	<ul style="list-style-type: none"> <li>Most of the data being used in the application is already open to the public.</li> </ul>
	9 - Maximize Reuse	HOW will this be achieved?
	<input type="checkbox"/> Leverage and reuse existing solutions, components, and processes	Leverage the reuse of existing solutions and components: <ul style="list-style-type: none"> <li>SSO</li> <li>CDTS Core Project for GOC Web template</li> <li>SOLR Search</li> </ul>
	<input type="checkbox"/> Select enterprise and cluster solutions over department-specific solutions	<ul style="list-style-type: none"> <li>This application is being developed for the GC</li> </ul>
	<input type="checkbox"/> Achieve simplification by minimizing duplication of components and adhering to relevant standards	<ul style="list-style-type: none"> <li>Using CDTS Core Project for GoC Web Template</li> </ul>
	<input type="checkbox"/> Inform the GC EARB about departmental investments and innovations	<ul style="list-style-type: none"> <li>In progress</li> </ul>
	<input type="checkbox"/> Share code publicly when appropriate, and when not, share within the Government of Canada	<ul style="list-style-type: none"> <li>Cloud based technology available to other GC organizations</li> </ul>

## APPENDIX 2: GC Architectural Standards

## UNCLASSIFIED / NON CLASSIFIÉ APPLICATION Alignment

(Please check ☒ all that apply)



10- Enable Interoperability	HOW will this be achieved?
<input type="checkbox"/> Expose all functionality as services	<ul style="list-style-type: none"> <li>TBS exposes functionality as a service.</li> </ul>
<input type="checkbox"/> Use micro services built around business capabilities. Scope each service to a single purpose	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<input type="checkbox"/> Run each IT service in its own process and have it communicate with other IT services through a well-defined interface, such as an HTTPS-based application programming interface (API) as per Appendix D: Mandatory Procedures for Application Programming Interfaces	
<input type="checkbox"/> Run applications in containers	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
<input type="checkbox"/> Leverage the GC Digital Exchange Platform for components such as the API Store, Messaging, and the GC Service Bus	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>

## APPENDIX 2: GC Architectural Standards

## UNCLASSIFIED / NON CLASSIFIÉ TECHNOLOGY Alignment

(Please check ☒ all that apply)



### 11 - Use Cloud first\*

### HOW will this be achieved?

<input type="checkbox"/> Enforce this order of preference: Software as a Service (SaaS) first, then Platform as a Service (PaaS), and lastly Infrastructure as a Service (IaaS)	<input type="checkbox"/> The application uses Azure Cognitive Search, Azure Functions, Azure Storage and Web Apps which are a Software as a Service.
<input type="checkbox"/> Enforce this order of preference: Public cloud first, then Hybrid cloud, then Private cloud, and lastly non-cloud (on-premises) solutions	<input type="checkbox"/> The solution is on SSC brokered Azure cloud.
<input type="checkbox"/> Design for cloud mobility and develop an exit strategy to avoid vendor lock-in	<input type="checkbox"/> Not applicable

### 12 - Design for Performance, Availability, and Scalability

### HOW will this be achieved?

<input type="checkbox"/> Design for resiliency	<input type="checkbox"/> Application built for multiple browsers, in addition to with azure cloud, and azure devops CICD.
<input type="checkbox"/> Ensure response times meet user needs for availability	<input type="checkbox"/> Application is on azure and can be adjusted during peak times.
<input type="checkbox"/> Support zero-downtime deployments for planned and unplanned maintenance	<input type="checkbox"/> Azure devops has decreased our downtime.
<input type="checkbox"/> Use distributed architectures, assume failure will happen, handle errors gracefully, and monitor actively	<input type="checkbox"/> TBS has app Insight monitors and alerts when issues occur.

\* **NOTE:** As per CIO of Canada: All OpenText and SAP renewals will now be done through the new Cloud First policy, which states Software As A Service (SaaS).

## APPENDIX 2: GC Architectural Standards

## UNCLASSIFIED / NON CLASSIFIÉ SECURITY & PRIVACY Alignment

(Please check ☒ all that apply)



### 13 - Design for Security and Privacy

### HOW will this be achieved?

- |   |  |
|---|--|
| <input type="checkbox"/> Implement security across all architectural layers   | <ul style="list-style-type: none"> <li>TBS policies and standards followed for security and segregation of architecture layers.</li> </ul> |
| <input type="checkbox"/> Categorize data properly to determine appropriate safeguards   | <ul style="list-style-type: none"> <li>PIA and SOS were completed, unclassified data with no risks.</li> </ul>                             |
| <input type="checkbox"/> Perform a privacy impact assessment (PIA) and mitigate all privacy risks when personal information is involved | <ul style="list-style-type: none"> <li>PIA was completed, no personal data collects, no risks identified.</li> </ul>                       |
| <input type="checkbox"/> Balance user and business needs with proportionate security measures and adequate privacy protections.         | <ul style="list-style-type: none"> <li>Not applicable</li> </ul>   |

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## APPENDIX 3: Additional Project Details

### Request Summary Information

TBS Project/Activity ID (from IT PLAN)	P1819-250		
Concept Case (ENDORSED ?)	YES <input checked="" type="checkbox"/>	DATE: June 30,2020	NO <input type="checkbox"/> REASON:
Timeline	Planned Start Date: 12-2019		Planned End Date: 03- 2021
Cost Summary	One Time project cost: \$ 512,000	(TB Sub)	On-going (annual) costs: \$ 200,000
Funding Source	A-Base <input type="checkbox"/>	B-Base <input checked="" type="checkbox"/>	Other: Please specify
Current Gate*	Gate 3		
On schedule?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	IF not... why not?

### Departmental Architecture

Do you have a Departmental Architecture Review Board (ARB)?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
Who is the Chief Architect?	Name : Sevac Eskibashian Email / Phone # Sevac.Eskibashian@tbs-sct.gc.ca	
Has the Departmental EA and Architecture Review Board sanctioned the preferred Solution Architecture option?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
<b>NOTE:</b> Please provide a copy of your ARB Minutes & Record of Decision		

\* TBS Gates:

<https://www.canada.ca/en/treasury-board-secretariat/services/information-technology-project-management/project-management/guide-project-gating-it-enabled-projects.html>



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## APPENDIX 3: Shared Services Canada (SSC) Involvement

SSC Scope	
What is the scope of work required by Shared Services Canada?	N/A
When/How has SSC been involved in this project?	
What SSC Services are to be impacted or consumed?	<a href="http://service.ssc-spc.gc.ca/en/services">http://service.ssc-spc.gc.ca/en/services</a> Include due dates for SSC deliverables.
What are the dependencies and assumptions?	(ex: authentication, cloud connectivity. If legacy Data Centre, which one and has capacity has been confirmed.)
SSC Internal Governance	
Presentation title: Please include Presentation title, committee and date of presentation (or rationale for not going through governance)	Governance Committees: Committee DD/MM/YY Committee DD/MM/YY
SSC Contact	
SSC BR number (if available)	BR Number
SSC Client Executive contact	Name/Title
SSC project contact	Name/Title
SSC architecture contact	Name/Title (if available)

For help in completing this slide feel free to contact your Client Executive  
<http://service.ssc-spc.gc.ca/en/contact/partclisupport/client-execs>

## APPENDIX 4:

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# Algorithmic Digital Solution - Impact Assessment Requirements

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### Background Information :

<https://www.canada.ca/en/government/system/digital-government/modern-emerging-technologies/responsible-use-ai/algorithmic-impact-assessment.html>

**1** Complete AIA for project

<https://canada-ca.github.io/aia-eia-js/>

**2** SAVE results

"Print" to PDF

**3** INCLUDE results with EARB  
intake

EMAIL: [ZZCIOBDP@tbs-sct.gc.ca](mailto:ZZCIOBDP@tbs-sct.gc.ca)

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## APPENDIX 5: Exemption Request

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- ▶ *Tell us what this exemption request for ( e.g., target reference architecture, standard, etc.).*
- ▶ *Describe which target reference architecture or standard for which an exemption / exception request is being sought, and why exemption is required. Explain why these guidance not applicable to your department.*
- ▶ *Please explain how your Project/Solution or Effort proposal used to uniquely support your Departmental Mandate?*

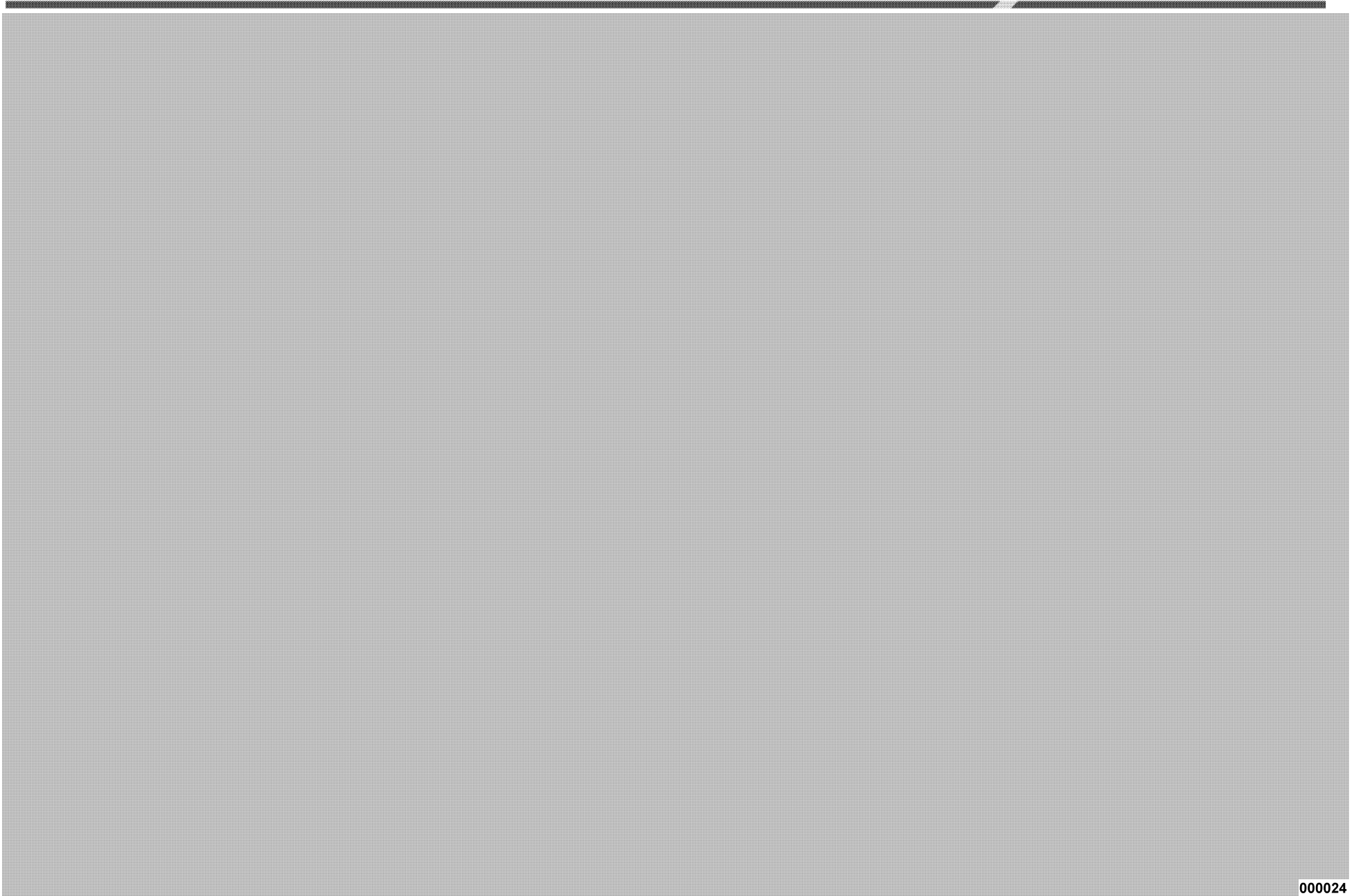
*Note: You may insert more pages if required. Please remove these guidance words once you complete this page.*

### **Risk to project if exemption is not endorsed?**

- *Describe the risk and why the GC EARB should support the exemption request*

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# Target State Architecture - **DIAGRAM**



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Secrétariat du Conseil du Trésor  
du Canada

Treasury Board of Canada  
Secretariat

Canada

# Gouvernement du Canada

## Comité d'examen de l'architecture intégrée (CEAI du GC)

Secrétariat du Conseil du Trésor du Canada – Solution de  
données liées aux règles de rémunération P1819-248

13 août 2020

Présentation pour :	Présentation au CEAI :	Coordonnées de personnes-ressources :
<input type="checkbox"/> Renseignements	<input type="checkbox"/> Initial	<p><b>Présentateurs :</b></p> <ul style="list-style-type: none"><li>• Fred Begley – Sous-ministre-adjoint (SMA) par intérim du Plan de soutien à la gestion de projet (PSGP), <a href="mailto:Fred.Begley@tbs-sct.gc.ca">Fred.Begley@tbs-sct.gc.ca</a>, 613-868-4970</li><li>• Francois Brunet – directeur principal, Direction de la gestion de l'information et de la technologie (DGIT), <a href="mailto:Francois.Brunet@tbs-sct.gc.ca">Francois.Brunet@tbs-sct.gc.ca</a>, 613-462-3865</li></ul>

# Objectif de la séance du CEAI du GC

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- ▶ L'objectif de cette présentation est de fournir des **renseignements** du CEAI du GC sur le besoin opérationnel de la Solution de données liées aux règles de rémunération et la façon dont le Secrétariat du Conseil du Trésor du Canada (SCT) tirerait parti de différentes technologies pour répondre au besoin.

Et de demander l'approbation pour GCEARB

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# Vue d'ensemble

## Aperçu du projet

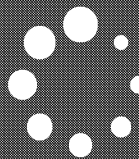
Le Bureau du dirigeant principal des ressources humaines (BDPRH) cherche à créer un dépôt centralisé des règles de rémunération et des documents à l'appui qui constitueront une source exacte et faisant autorité pour toutes les parties intéressées au sein du gouvernement du Canada (GC).

### Problème



- Les règles de rémunération sont nombreuses, complexes et non normalisées dans les conventions collectives et d'autres documents.
- L'accès aux données sur les règles de rémunération est fragmenté à l'échelle du gouvernement.
- Le processus de planification, de recherche et d'analyse pour la négociation collective est complexe et exige beaucoup de main-d'œuvre.

### Besoin



Un dépôt complet et exact des règles de rémunération qui facilite la recherche et l'analyse et qui est accessible au BDPRH et à l'ensemble du GC.

### Avantages

**Créer**  
une source  
unique de règles  
de rémunération.

**Donner**  
l'accès aux  
intervenants

**Faciliter**  
la planification,  
l'analyse et les  
négociations  
collectives

**Appuyer**  
la simplification  
des règles de  
rémunération

**Assurer**  
la qualité des  
données

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# Énoncé de la possibilité

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Les règles de rémunération sont les suivantes :

## Désorganisées

Le nombre de règles de rémunération est actuellement inconnu, ces règles sont difficiles à trouver et sont rédigées de façon incohérente.

## Inefficaces

La recherche des règles de rémunération exige l'examen manuel de nombreux documents différents.

## Opaques

Difficile de déterminer l'incidence des changements apportés aux règles de rémunération dans les conventions collectives et d'autres sources.

## Possibilité

Créer une seule source faisant autorité de règles de rémunération accessible aux intervenants.

L'application prendra en charge ce qui suit :

- Recherche et indexation
- Analyse et catégorisation
- Normalisation et production de rapports



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# Demande – Renseignements détaillés

## Recommandation

La DGIT a évalué de façon très approfondie les besoins opérationnels et Présenté une analyse des options de solution qui a été jugée conforme aux normes numériques du GC. Selon l'analyse, la recommandation consiste à tirer parti d'une solution libre et personnalisée Offrant des fonctions de recherche intelligente et d'apprentissage automatique.

Avantages :

- Profiter des avantages de la technologie d'analyse de texte de Microsoft
- Possibilité d'utiliser la plateforme comme service (PaaS) pour la capacité de recherche
- Automatiser le processus de saisie des données

Inconvénients :

- Nécessité d'investir davantage en misant sur les nouvelles technologies. Une fois mise en œuvre, la solution permettrait de réaliser des économies lorsque de nouvelles règles sur la paye seront ajoutées aux documents sources.

## Avantages prévus

Évaluation de la meilleure option; établissement d'un équilibre optimal entre le coût, la valeur opérationnelle et la réalisabilité.

Répond au désir à l'échelle de l'entreprise de passer de la recherche de base par mot clé à la recherche intelligente.

La partie la plus exigeante en main-d'œuvre du processus d'identification des règles de rémunération est remplacé par l'apprentissage machine.

## Gouvernance

### Organes de gouvernance ministériels

- Les Règles de rémunération ont fait l'objet d'un examen par le Comité de ressourcement et d'une évaluation par le Comité d'examen de l'architecture du SCT, et les deux comités les ont approuvées.

### Responsable de processus

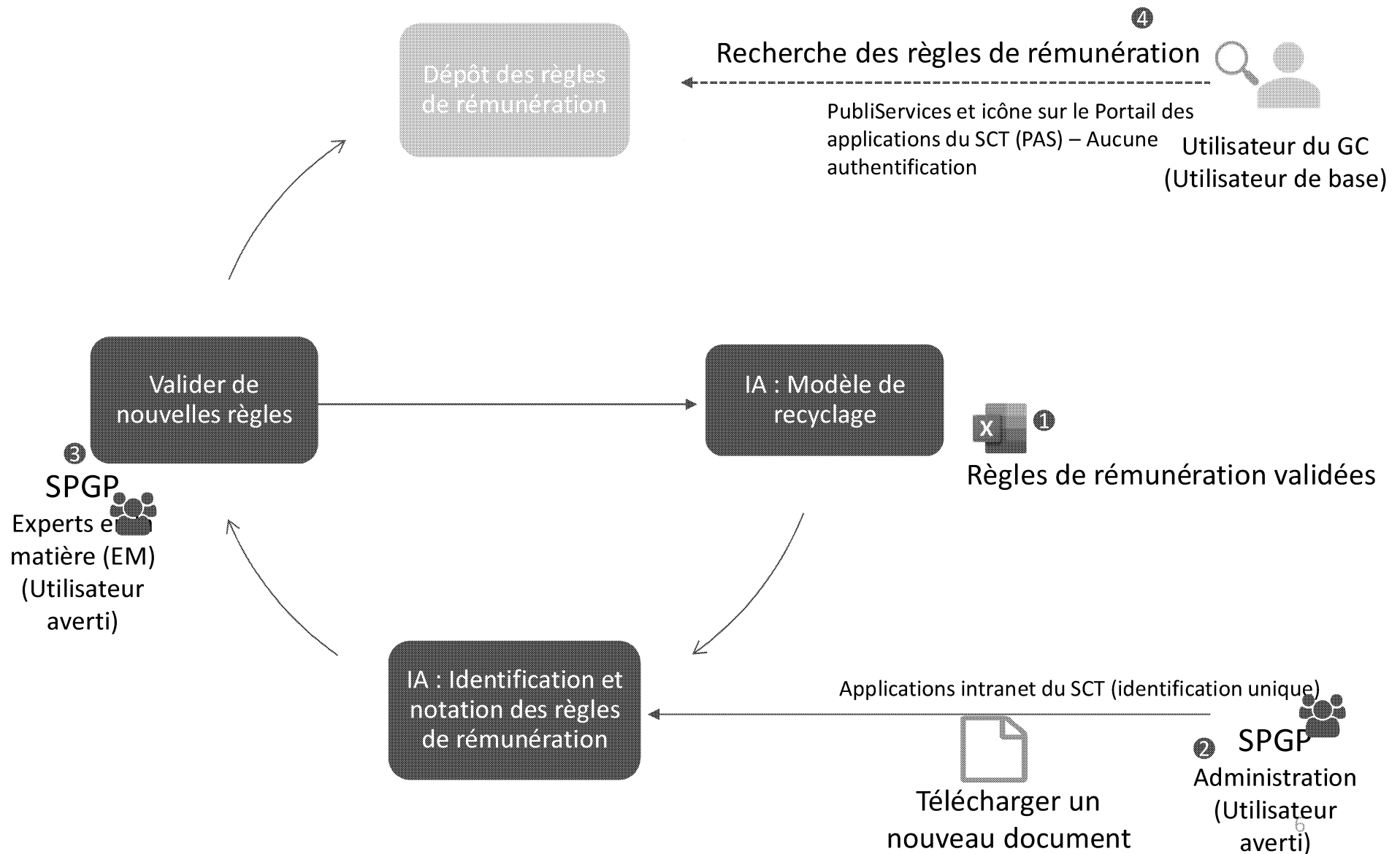
- Les systèmes et processus de gestion des personnes (SPGP) du Bureau du dirigeant principal des ressources humaines (BDPRH) se font les champions du projet des Règles de rémunération.

### Responsable technique

- L'équipe technique de la Direction générale de la gestion de l'information et de la technologie (DGGIT) du SCT fait la promotion de la mise en œuvre du projet.

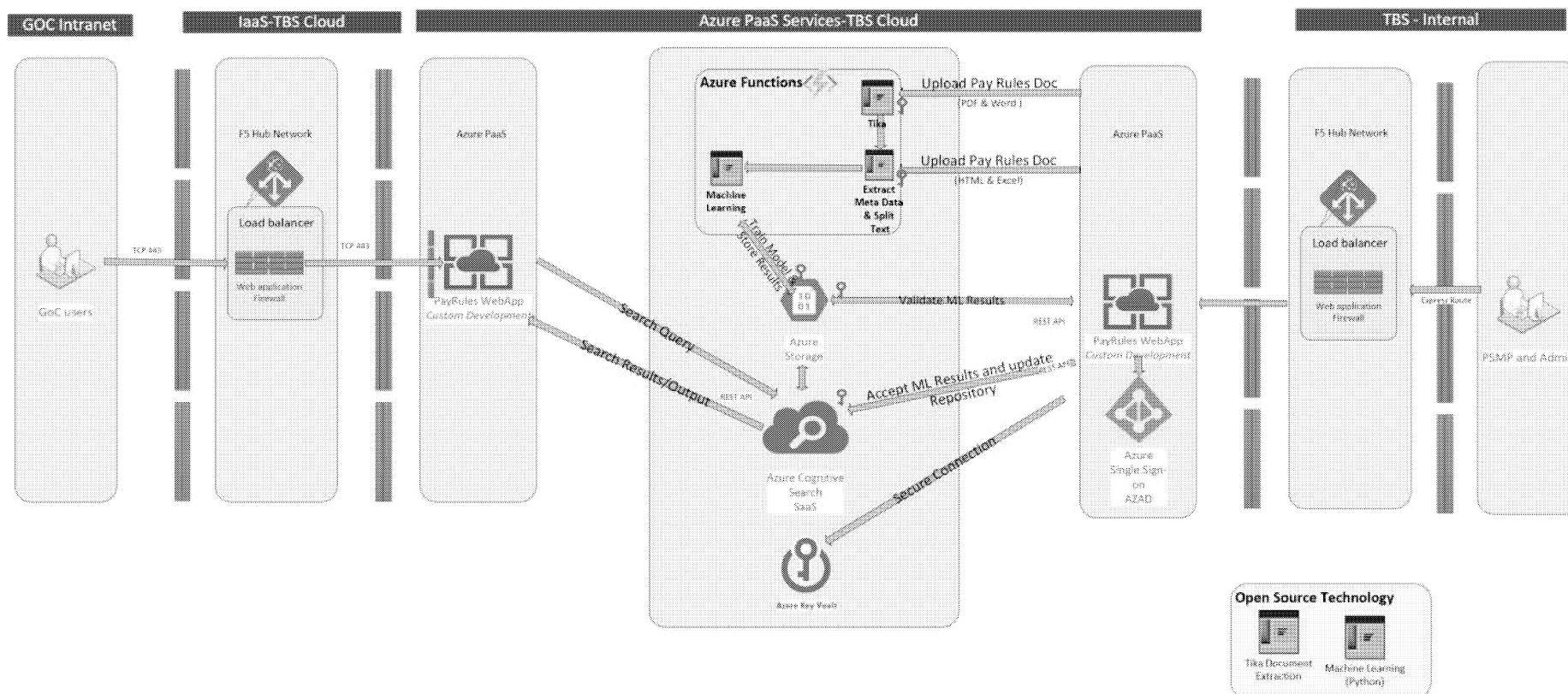
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# Solution liée aux règles de rémunération – Aperçu



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# Architecture de l'état cible – DIAGRAMME



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# Risques et atténuations

Note de l'ECRP : S.O.

Niveau de l'ECOGP de  
l'organisation : S.O.

Risques	atténuation	Prob.	Répercussions
1 <i>Risque pour la qualité, car l'apprentissage automatique nécessite des données validées sur les règles de rémunération pour former le modèle</i>			É

ECRP : Évaluation de la complexité et des risques des projets  
ECOGP : Évaluation de la capacité organisationnelle de gestion de projets

Sommaire exécutif

☒ **Approbation**  
☐ Information

ECRP : S.O.  
ECOGP : S.O.

Ponctuel : 512 000 \$  
Permanent : 200 \$

Dans l'ensemble :  
▲

Type de service infonuagique☒ SaaS☒ PaaS☐ IaaS☐ Sans objet

Données Classification☒ Non Classifié☐ Protégé A☐ Protégé B☐ Autre

Résumé de la proposition

Le BDPRH cherche à faire approuver la création d'un dépôt centralisé des règles de rémunération et des documents à l'appui qui constitueront une source exacte et faisant autorité pour toutes les parties intéressées au sein du GC.

Évaluation de l'architecture d'entreprise		
▲	Activités	<ul style="list-style-type: none"><li>Équipe pluridisciplinaire : Développeur Web, scientifique des données, BA, expert en EU et AQ</li><li>L'application est en cours d'élaboration dans les deux langues officielles et fait l'objet d'une mise à l'essai de l'accessibilité.</li></ul>
▲	Information	<ul style="list-style-type: none"><li>Remplacer un processus qui utilise actuellement des feuilles de calcul Excel stockées dans GC Docs du SCT, faciliter le repérage des données au SCT et les rendre plus disponibles dans l'ensemble du GC.</li><li>Avec le temps, ce système devrait faciliter la normalisation du libellé des conventions collectives et d'autres documents connexes.</li><li>Les données sont stockées dans les index de recherche cognitive Azure et dans le stockage du tableau Azure et sont accessibles au moyen d'interfaces de programmation d'applications qui pourraient, à long terme, être ouvertes à l'interopérabilité au besoin.</li></ul>
▲	Application	
▲	Technologie	
▲	Sécurité et confidentialité	
		<ul style="list-style-type: none"><li>Données complètes non classifiées d'ÉFVP et de SOS sans risque.</li></ul>

Recommandation de l'AE du GC	Conditions
L'AE recommande que le CEAI approuve l'architecture proposée	À confirmer

Harmonisation de l'architecture :

☒ Complète☐ Partielle☐ Aucune

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# ANNEXE

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## ANNEXE 1

### Normes numériques du GC

- **Exigée** pour l'évaluation de l'AE du GC
- NON incluse à la présentation

## ANNEXE 2

### Normes architectures du GC

- **Exigée** pour l'évaluation de l'AE du GC
- NON incluse à la présentation

## ANNEXE 3

### Détails supplémentaires sur le projet

- **Exigée** pour l'évaluation de l'AE du GC
- NON incluse à la présentation

## ANNEXE 4

### Évaluation de l'incidence algorithmique

- Remplir, tel **qu'exigée**
- NON incluse à la présentation

## ANNEXE 5

### Formulaire de demande d'exemption

- Remplir, tel **qu'exigée**

## ANNEXE 1 : Harmonisation numérique

- |  |  |  |   |
|--|--|--|---|
| <div>▲</div> <div>▲</div> <div>■</div> <div>▲</div> <div>▲</div> | <p><b>① Concevoir avec les utilisateurs</b></p> <ul style="list-style-type: none"><li>• Mener des recherches auprès des utilisateurs pour comprendre leurs besoins et les problèmes que nous voulons résoudre.</li><li>• Mener des essais continus auprès des utilisateurs pour orienter la conception et l'élaboration.</li></ul> <p><b>② Effectuer régulièrement des itérations et des améliorations</b></p> <ul style="list-style-type: none"><li>• Élaborer des services au moyen de méthodes souples, itératives et axées sur l'utilisateur.</li><li>• Effectuer constamment des améliorations en réponse aux besoins des utilisateurs.</li><li>• Essayer de nouvelles choses, commencer par de petits pas puis prendre de l'expansion.</li></ul> <p><b>③ Travailler dans un environnement ouvert par défaut</b></p> <ul style="list-style-type: none"><li>• Communiquer de façon ouverte les données probantes, les résultats de recherche et les décisions prises.</li><li>• Faire en sorte que tous les données, renseignements et nouveaux codes non confidentiels développés dans le cadre de la prestation de services soient accessibles au monde extérieur qui pourra les partager et les réutiliser sous licence ouverte.</li></ul> <p><b>④ Utiliser des normes et des solutions ouvertes</b></p> <ul style="list-style-type: none"><li>• Tirer profit de normes ouvertes et adopter des pratiques exemplaires, y compris le recours à des logiciels libres, le cas échéant.</li><li>• Concevoir des services et des plateformes qui sont transparents pour que les Canadiens puissent les utiliser, quel que soit l'appareil ou le moyen qu'ils utilisent.</li></ul> <p><b>⑤ Aborder les risques à la sécurité et à la protection des renseignements personnels</b></p> <ul style="list-style-type: none"><li>• Adopter une approche équilibrée en matière de gestion des risques en mettant en œuvre des mesures appropriées en matière de confidentialité et de sécurité.</li><li>• Éliminer toute friction dans le cadre des mesures de sécurité pour s'assurer qu'elles n'imposent pas de fardeau aux utilisateurs.</li></ul> | <div>▲</div> <div>▲</div> <div>▲</div> <div>▲</div> <div>▲</div> | <p><b>⑥ Intégrer l'accessibilité dès le départ</b></p> <ul style="list-style-type: none"><li>• Les services devraient respecter ou dépasser les normes d'accessibilité.</li><li>• Les utilisateurs ayant des besoins particuliers devraient être mis à contribution dès le départ afin de confirmer ce que la prestation de services convienne à tout le monde.</li></ul> <p><b>⑦ Habilier le personnel à offrir de meilleurs services</b></p> <ul style="list-style-type: none"><li>• Veiller à ce que les membres du personnel aient accès aux outils, à la formation et aux technologies dont ils ont besoin.</li><li>• Habilier l'équipe à prendre des décisions tout au long de la conception, de la mise sur pied et de l'exploitation du service.</li></ul> <p><b>⑧ Être de bons utilisateurs de données</b></p> <ul style="list-style-type: none"><li>• Recueillir les données auprès des utilisateurs une seule fois et les réutiliser dans la mesure du possible.</li><li>• Veiller à ce que les données soient recueillies et stockées de manière sécuritaire pour permettre à d'autres de facilement les réutiliser pour offrir des services.</li></ul> <p><b>⑨ Concevoir des services éthiques</b></p> <ul style="list-style-type: none"><li>• Veiller à ce que tout le monde reçoive un traitement équitable.</li><li>• Se conformer aux lignes directrices en matière d'éthique dans la conception et l'utilisation de systèmes qui automatisent la prise de décisions (comme l'utilisation de l'intelligence artificielle).</li></ul> <p><b>⑩ Collaborer à grande échelle</b></p> <ul style="list-style-type: none"><li>• Créer des équipes multidisciplinaires ayant la gamme de compétences nécessaires pour atteindre un objectif commun.</li><li>• Échanger et collaborer ouvertement. Définir et établir des partenariats qui aident à offrir de la valeur aux utilisateurs.</li></ul> |
|--|--|--|---|

Harmonisation architecturale :

▲ Complète ● Partielle ■ Aucune

## ANNEXE 2 : Normes architectures du GC

## UNCLASSIFIED / NON CLASSIFIÉ Harmonisation OPÉRATIONNELLE

(Veuillez cocher ☒ toutes les cases qui s'appliquent)

1 – S'aligner sur le modèle des capacités opérationnelles du GC		COMMENT procédera-t-on?
<input type="checkbox"/>	Définir les services de programme comme des capacités opérationnelles pour établir un vocabulaire commun entre les organisations, le développement et l'exploitation.	▪
<input type="checkbox"/>	Déterminer les capacités communes à l'organisation du gouvernement du Canada qui peuvent être présentées et réutilisées.	▪
<input type="checkbox"/>	Modéliser les processus opérationnels à l'aide de la Notation du modèle de prestation des services intégrés (NMPSI) pour définir les processus d'organisation communs.	▪
2 – Concevoir d'abord pour les utilisateurs et livrer avec des équipes multidisciplinaires		COMMENT procédera-t-on?
<input checked="" type="checkbox"/>	<input type="checkbox"/> Mettre l'accent sur les besoins des utilisateurs en utilisant des méthodes souples, itératives et axées sur l'utilisateur.	▪ Approche agile suivie par l'équipe de projet – travailler en étroite collaboration avec le client afin d'assurer une amélioration et une concentration régulières
<input checked="" type="checkbox"/>	<input type="checkbox"/> Se conformer aux exigences en matière d'accessibilité et de langues officielles.	▪ L'application est en cours d'élaboration dans les deux langues officielles et passe par des essais rigoureux d'accessibilité
<input checked="" type="checkbox"/>	<input type="checkbox"/> Inclure tous les ensembles de compétences nécessaires à la prestation, y compris pour les exigences, la conception, le développement et les activités.	▪ Équipe multidisciplinaire impliquée avec des ressources telles que le développeur Web, le scientifique des données, l'analyste opérationnel, l'expert en expérience utilisateur et le vérificateur de la qualité
<input checked="" type="checkbox"/>	<input type="checkbox"/> Travailler tout au long du cycle de vie des applications, du développement et des essais au déploiement et à l'exploitation.	▪ L'équipe de projet s'assure que toutes les empreintes suivent le cycle de vie de l'application et l'intégration de la phase clé
<input checked="" type="checkbox"/>	<input type="checkbox"/> S'assurer que la qualité est prise en compte tout au long du cycle de vie du développement logiciel.	▪ L'équipe d'assurance de la qualité a été mobilisée dès le début du projet pour s'assurer que tous les cas d'utilisation sont pris en considération pour la phase de validation.
<input checked="" type="checkbox"/>	<input type="checkbox"/> S'assurer que la reddition de comptes en matière de protection des renseignements personnels est claire.	▪ L'application ne contient aucun renseignement personnel, un énoncé de sensibilisation a été rempli ainsi qu'une évaluation des facteurs relatifs à la vie privée.
	<input type="checkbox"/> Encourager et adopter le développement basé sur les tests pour renforcer la confiance entre l'entreprise et la TI.	▪



## ANNEXE 2 : Normes architectures du GC

## UNCLASSIFIED / NON CLASSIFIÉ Harmonisation OPÉRATIONNELLE

(Veuillez cocher ☒ toutes les cases qui s'appliquent)

3 – Concevoir des systèmes pouvant être évalués et rendre des comptes	COMMENT procédera-t-on?
<input type="checkbox"/> Publier les attentes de rendement pour chaque service de TI.	▪
<input type="checkbox"/> Mettre à disposition une piste de vérification pour toutes les transactions afin d'assurer la responsabilité et la non-répudiation.	▪
<input type="checkbox"/> Établir des paramètres opérationnels et informatiques pour permettre des résultats opérationnels.	▪
<input checked="" type="checkbox"/> Appliquer la surveillance et la gestion du cycle de vie aux investissements numériques par l'entremise de la gouvernance.	▪ Le projet a traversé plusieurs niveaux de gouvernance. Qui comprend ce qui suit : – Comité des ressources du SCT, approbation reçue pour les points de contrôle 1 et 3. – Réunion mensuelle du Comité directeur des Dirigeants principaux de l'information (DPI) avec le DPI et le sous-ministre adjoint – Réunion mensuelle du DPI sur le projet – Conseil d'examen de l'architecture du Ministère – Groupe de travail sur l'architecture des applications du Ministère – Groupe de travail sur l'architecture des données du Ministère

## ANNEXE 2 : Normes architectures du GC

## UNCLASSIFIED / NON CLASSIFIÉ Harmonisation de l'INFORMATION

(Veuillez cocher ☒ toutes les cases qui s'appliquent)

4 – Collecte des données	COMMENT procédera-t-on?
<input type="checkbox"/> S'assurer que les données sont recueillies de manière à optimiser leur utilisation et leur accessibilité.	▪ Les données ne sont pas recueillies dans le cadre de ce projet, elles sont extraites de différentes sources de données comme les conventions collectives et les documents législatifs
<input type="checkbox"/> S'assurer que les données recueillies sont conformes aux normes institutionnelles et internationales en vigueur.	▪ Sans objet
<input type="checkbox"/> En l'absence de normes institutionnelles ou internationales, élaborer des normes ouvertes en collaboration avec des spécialistes.	▪ Sans objet
<input type="checkbox"/> S'assurer que la collecte de données permet d'obtenir des données de haute qualité conformément aux lignes directrices en matière de qualité des données.	▪ Sans objet
<input type="checkbox"/> Veiller à ce que les données soient recueillies au moyen de pratiques éthiques appuyant les citoyens et l'utilisation commerciale.	▪ Sans objet
<input type="checkbox"/> Les données ne devraient être acquises qu'une seule fois et devraient respecter les normes internationales.	▪ Sans objet
<input type="checkbox"/> Lorsque nécessaire, veiller à la collaboration avec les responsables de données des ministères et des organismes, des autres ordres de gouvernement et des peuples autochtones.	▪ Sans objet
5 – Gestion des données	COMMENT procédera-t-on?
<input type="checkbox"/> Démontrer l'harmonisation avec la gouvernance et les stratégies de données organisationnelles et ministérielles.	Les données ne sont pas recueillies dans cette application. Les données qui sont extraites suivent les normes du groupe de travail sur l'architecture des données du SCT. Les données sont automatiquement extraites d'une variété de documents, puis validées manuellement par les experts en la matière (EM) pour assurer la qualité avant d'être rendues accessibles aux utilisateurs dans l'ensemble du gouvernement du Canada. Cela remplace un processus qui utilise actuellement des feuilles de calcul Excel stockées dans GCdocs du SCT, et rend les données plus repérables au sein du SCT et disponibles dans l'ensemble du GC. Au fil du temps, ce système devrait aider à normaliser la langue dans l'ensemble des conventions collectives et d'autres documents connexes.
<input type="checkbox"/> Veiller à la reddition de comptes pour les rôles et responsabilités en matière de données.	Il y a trois rôles dans le système, soit les utilisateurs du GC, l'administrateur et les EM. Les utilisateurs du GC ont accès à toutes les données validées en étant connectés à l'intranet du GC. Un petit nombre d'utilisateurs du Bureau du dirigeant principal des ressources humaines (BDPRH) auront accès au téléchargement de fichiers et/ou à la validation de données, authentifiées par l'entremise de l'identification unique du SCT. Le système consignera les informations sur les personnes qui ont validé une règle et celles qui ont téléchargé le document.
<input type="checkbox"/> Concevoir pour optimiser l'utilisation et la disponibilité des données.	Les données validées seront accessibles à tous avec accès à l'intranet du GC.

## ANNEXE 2 : Normes architectures du GC

## UNCLASSIFIED / NON CLASSIFIÉ Harmonisation de l'INFORMATION

(Veuillez cocher ☒ toutes les cases qui s'appliquent)

### 6 – Stockage des données

### COMMENT procédera-t-on?

<input checked="" type="checkbox"/> <input type="checkbox"/> S'assurer que les données sont stockées de manière sécuritaire, conformément à la Stratégie nationale de cybersécurité et la <i>Loi sur la protection des renseignements personnels</i> .	<ul style="list-style-type: none"> <li>Les données ne sont pas classifiées et ne sont pas sensibles et seront stockées conformément aux politiques du SCT.</li> <li>L'authentification se fait par identification unique et aucun renseignement personnel n'est stocké dans l'application.</li> </ul>
<input checked="" type="checkbox"/> Appliquer les calendriers de conservation et d'élimination mis en place.	<ul style="list-style-type: none"> <li>L'équipe travaille en étroite collaboration avec la gestion de l'information pour s'assurer que le calendrier de conservation et d'élimination est respecté pour les données sur les règles de rémunération.</li> <li>Nous ne stockons pas les documents originaux pour des raisons de conservation. Le client détermine actuellement les calendriers appropriés de conservation et d'élimination des données extraites.</li> </ul>
<input type="checkbox"/> S'assurer que les données sont stockées d'une façon qui facilite leur recherche, leur accessibilité et leur interopérabilité.	<ul style="list-style-type: none"> <li>Cet outil offre une capacité de recherche souple sur les règles de paye extraites d'une variété de documents afin de faciliter la découverte et l'accessibilité de l'information sur les règles de rémunération.</li> <li>Les données sont stockées dans les indexés d'Azure Cognitive Search et Stockage Table Azure, et sont accessibles à l'aide d'interfaces de programmation d'applications (IPA) qui pourraient à plus long terme être ouvertes pour l'interopérabilité si nécessaire.</li> </ul>

### 7 – Partage des données

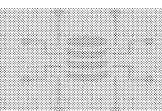
### COMMENT procédera-t-on?

<input type="checkbox"/> Les données devraient par défaut être partagées de façon ouverte, conformément à la Directive sur le gouvernement ouvert.	<ul style="list-style-type: none"> <li>La plupart des documents de données sources sont accessibles au public sur le site Canada.ca ou sur d'autres sites Web organisationnels (le BDPRH a dû demander des documents par courriel auprès de nombreuses petites organisations). L'application est destinée aux utilisateurs du GC.</li> </ul>
<input type="checkbox"/> S'assurer que les données détenues par le gouvernement peuvent être combinées à des données provenant d'autres sources pour permettre l'interprétabilité et l'interopérabilité en vue de l'usage interne et externe.	<ul style="list-style-type: none"> <li>Notre ensemble de données combine des données provenant de plusieurs sources.</li> <li>Les données sont accessibles à l'aide des IPA qui pourraient, à plus long terme, être ouvertes à l'interopérabilité au besoin et, le cas échéant, être combinées avec d'autres sources.</li> </ul>
<input type="checkbox"/> Diminuer la collecte de données redondantes.	<ul style="list-style-type: none"> <li>Nous extrayons principalement des données provenant de sources existantes avec un certain degré de marge pendant le processus de validation, et nous utilisons l'apprentissage automatique pour réduire le fardeau de majoration.</li> </ul>
<input type="checkbox"/> Réutiliser les données existantes autant que possible.	<ul style="list-style-type: none"> <li>Nous réutilisons principalement les données existantes.</li> </ul>
<input type="checkbox"/> Encourager le partage de données et la collaboration.	<ul style="list-style-type: none"> <li>Ce projet facilite l'échange de données et la collaboration dans l'ensemble du gouvernement du Canada en rendant disponibles des données sur les règles de paye individuelles qui n'existent actuellement que dans GCdocs du SCT et une variété de documents non structurés.</li> </ul>

## ANNEXE 2 : Normes architectures du GC

## UNCLASSIFIED / NON CLASSIFIÉ Harmonisation des APPLICATIONS

(Veuillez cocher ☒ toutes les cases qui s'appliquent)



### 8 – Utiliser des solutions et des normes ouvertes par défaut

### COMMENT cela sera-t-il réalisé?

☐ Dans la mesure du possible, accorder la priorité à l'utilisation de normes et de logiciels ouverts.

▪ Équipe exploitant l'application à source ouverte TIKa pour l'extraction de texte et Python pour l'apprentissage automatique

☐ Si l'option de source libre n'est pas disponible ou ne répond pas aux besoins des utilisateurs, privilégier les Logiciels commerciaux prêts à l'emploi (LCPE) non exclusifs à une plateforme aux LCPE propriétaires de façon à éviter la dépendance technologique et à permettre la substituabilité et l'interopérabilité.

▪ Sans objet

☐ Si l'option appropriée est l'application personnalisée, prendre note que les codes sources écrits par le gouvernement doivent, par défaut, être diffusés dans un format ouvert au moyen des sites Web du gouvernement du Canada et des services désignés par le Secrétariat du Conseil du Trésor du Canada.

▪ Code personnalisé pour l'interface seulement, rien de réutilisable pour les autres.

☐ Tous les codes sources ouverts doivent être diffusés en vertu d'une licence de logiciel à source ouverte.

▪ Utilisation de .NetCore nugets disponibles sur le cadre infonuagique de .net

☐ Diffuser les données publiques pour mettre en œuvre différentes initiatives de données ouvertes et d'information ouverte.

▪ La plupart des données utilisées dans l'application sont déjà accessibles au public.

### 9 – Optimiser la réutilisation

### COMMENT cela sera-t-il réalisé?

☐ Mettre à profit et réutiliser les solutions, composantes et processus existants.

Tirer parti de la réutilisation des solutions et des composants existants :

- Identification unique (IU)
- Projet de base de la solution à gabarits déployés centralement (SGDC) pour le Modèle Web du GC
- Recherche SOLR

☐ Choisir des solutions d'organisation et de groupe plutôt que des solutions propres à un ministère.

▪ Cette application est en cours d'élaboration du GC.

☐ Réaliser la simplification en réduisant au minimum le doublement des composants et en adhérant aux normes qui s'appliquent.

• Utilisation du projet de base du SGDC pour le modèle Web du GC

☐ Informer le CEAI du GC relativement aux investissements et aux innovations du Ministère.

▪ En cours

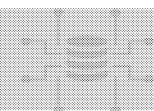
☐ Communiquer publiquement le code, s'il y a lieu, et, lorsque ce n'est pas le cas, le présenter au sein du gouvernement du Canada.

▪ Technologie infonuagique accessible à d'autres organisations du GC

## ANNEXE 2 : Normes architectures du GC

## UNCLASSIFIED / NON CLASSIFIÉ Harmonisation des APPLICATIONS

(Veuillez cocher ☒ toutes les cases qui s'appliquent)

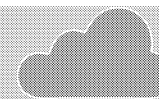


10 – Permettre l'interopérabilité	COMMENT cela sera-t-il réalisé?
<input type="checkbox"/> Présenter toutes les fonctionnalités en tant que services.	<ul style="list-style-type: none"> <li>Le SCT expose les fonctions en tant que service.</li> </ul>
<input type="checkbox"/> Utiliser des microservices articulés autour des capacités de l'organisation. Axer chaque service sur un seul objectif.	<ul style="list-style-type: none"> <li>Sans objet</li> </ul>
<input type="checkbox"/> Exécuter chaque service de TI dans le cadre de son propre processus avant de le diffuser aux autres services de TI par l'intermédiaire d'une interface bien-défini, comme une interface de programmation d'application (IPA) HTTPS conformément à l'annexe B – Procédures obligatoires pour les interfaces de programmation d'applications.	<ul style="list-style-type: none"> <li></li> </ul>
<input type="checkbox"/> Exécuter les applications dans les conteneurs.	<ul style="list-style-type: none"> <li>Sans objet</li> </ul>
<input type="checkbox"/> Tirer parti de la plateforme d'échange numérique du GC pour différents composants tels que le Magasin d'IPA, la messagerie et le bus de service du GC.	<ul style="list-style-type: none"> <li>Sans objet</li> </ul>

## ANNEXE 2 : Normes architectures du GC

## UNCLASSIFIED / NON CLASSIFIÉ Harmonisation de la TECHNOLOGIE

(Veuillez cocher ☒ toutes les cases qui s'appliquent)



11 – Utiliser d'abord le nuage*	COMMENT cela sera-t-il réalisé?
<input type="checkbox"/> Préconiser cet ordre de préférences : Logiciel comme service (SaaS) d'abord, puis Plateforme comme service (PaaS), et en dernier lieu, l'Infrastructure comme service (IaaS).	<ul style="list-style-type: none"> <li>▪ L'application utilise Azure Cognitive Search, Fonctions de l'application d'Azure, stockage Azure et les applications Web qui sont un logiciel en tant que service (SaaS).</li> </ul>
<input type="checkbox"/> Appliquer cet ordre de préférence : Nuage public d'abord, puis nuage hybride, ensuite nuage privé, et enfin des solutions non liées aux nuages (sur place).	<ul style="list-style-type: none"> <li>▪ La solution est sur le nuage Azure offert par SPC.</li> </ul>
<input type="checkbox"/> Concevoir à des fins de mobilité du nuage, et élaborer une stratégie de sortie pour éviter le blocage des fournisseurs.	<ul style="list-style-type: none"> <li>▪ Sans objet</li> </ul>

12 – Conception pour le rendement, la disponibilité et l'évolutivité	COMMENT cela sera-t-il réalisé?
<input type="checkbox"/> Concevoir en gardant à l'esprit la résilience.	<ul style="list-style-type: none"> <li>▪ Application conçue pour plusieurs navigateurs, en plus du nuage azur, et Azure DevOps CICD.</li> </ul>
<input type="checkbox"/> S'assurer que les temps de réponse respectent les besoins en matière d'accessibilité des utilisateurs.	<ul style="list-style-type: none"> <li>▪ L'application est sur Azure et peut être ajustée pendant les heures de pointe.</li> </ul>
<input type="checkbox"/> Prendre en charge les déploiements sans temps d'arrêt en vue de l'entretien planifié et non planifié.	<ul style="list-style-type: none"> <li>▪ Azure DevOps a réduit notre temps d'arrêt.</li> </ul>
<input type="checkbox"/> Utiliser des architectures distribuées, prévoir la possibilité d'échec, traiter dignement les erreurs et effectuer une surveillance active.	<ul style="list-style-type: none"> <li>▪ Le SCT dispose d'applications de surveillance et d'alertes en cas de problèmes.</li> </ul>

\* REMARQUE : Conformément au dirigeant principal de l'information (DPI) du Canada, tous les renouvellements d'OpenText et du SAP seront maintenant effectués au moyen de la nouvelle Politique du « nuage d'abord », qui prévoit un logiciel en tant que service (SaaS).

## ANNEXE 2 : Normes architectures du GC

## UNCLASSIFIED / NON CLASSIFIÉ Conformité de la SÉCURITÉ et de la PROTECTION des renseignements personnels

(Veuillez cocher ☒ toutes les cases qui s'appliquent)



### 13 – Conception pour la sécurité et la protection de la vie privée

### COMMENT cela sera-t-il réalisé?

☐ Mettre en œuvre les mesures de sécurité dans toutes les couches architecturales.

▪ Les politiques et les normes du SCT ont été suivies pour la sécurité et la séparation des couches d'architecture.

☐ Classifier correctement les données pour déterminer les mesures de protection appropriées.

▪ L'évaluation des facteurs relatifs à la vie privée (EFVP) et l'énoncé de sensibilité (EDS) ont été réalisés, des données non classifiées sans risque.



☒ Effectuer une EFVP et atténuer les risques lorsqu'il s'agit de renseignements personnels.

▪ L'EFVP a été réalisée, aucune donnée personnelle n'a été recueillie, aucun risque n'a été relevé.

☐ Trouver l'équilibre entre les besoins des utilisateurs et de l'organisation en utilisant des mesures de sécurité proportionnées et des mesures adéquates de protection des renseignements personnels.

▪ Sans objet

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## ANNEXE 3 : Détails supplémentaires sur le projet

### Renseignements sommaires sur la demande

ID du projet ou de l'activité du SCT (du PLAN de TI)	P1819-250			
Cas conceptuel (APPROUVÉ?)	OUI <input checked="" type="checkbox"/>	DATE : 30 juin 2020	NON <input type="checkbox"/>	RAISON :
Calendrier	Date de début prévue : 12-2019		Date de fin prévue : 03- 2021	
Sommaire des coûts	Coût du projet ponctuel : 512 000 \$		(Présentation au CT)	Coûts permanents (annuels) : 200 000 \$
Provenance des fonds	Services votés temporaire <input type="checkbox"/>	Budget <input type="checkbox"/>	Autre : veuillez préciser	
Point de contrôle actuel*	Point de contrôle 3			
Respect des échéanciers?	OUI <input checked="" type="checkbox"/>	NON <input type="checkbox"/>	Si non, pourquoi?	

### Architecture ministérielle

Avez-vous un Conseil d'examen de l'architecture (CEA) ministériel?	OUI <input checked="" type="checkbox"/>	NON <input type="checkbox"/>
Qui est l'architecte en chef?	Nom : Sevac Eskibashian Courriel/num. de téléphone Sevac.Eskibashian@tbs-sct.gc.ca	
L'AE ministérielle et le Comité d'examen de l'architecture (CEA) ont-ils approuvé l'option privilégiée de l'architecture de la solution?	OUI <input type="checkbox"/>	NON <input type="checkbox"/>
<b>NOTE :</b> Veuillez fournir une copie de votre procès-verbal et du compte rendu des décisions du CEA		

\* Points de contrôle du SCT

<https://www.canada.ca/fr/secretariat-conseil-tresor/services/gestion-information-technologie-projets/gestion-projets/guide-etablissement-points-contrôle-projets-axes-ti.html>



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## ANNEXE 3 :

### Participation de Services partagés Canada (SPC)

Portée de SPC	
Quelle est la portée des travaux exigés par Services partagés Canada?	S.O.
Quand SPC s'est-t-il engagé dans ce projet et de quelle façon?	
Quels services de SPC seront touchés?	<a href="http://service.ssc-spc.gc.ca/fr/services">http://service.ssc-spc.gc.ca/fr/services</a> Inclure les dates d'échéance pour les produits livrables de SPC
Quelles sont les dépendances et les suppositions?	(par exemple, authentification, connectivité avec le nuage. S'il s'agit d'un centre de données existant, de quel centre s'agit-il et la capacité a-t-elle été confirmée?)
Gouvernance interne de SPC	
Titre de la présentation Veuillez inclure le titre de la présentation, le comité et la date de présentation (ou la raison pour laquelle vous ne passez pas par la gouvernance)	Comités de gouvernance : Comité JJ/MM/AA Comité JJ/MM/AA
Personne-ressource de SPC	
Numéro d'entreprise de SPC (si disponible)	Numéro d'entreprise
Personne-ressource pour les relations avec les clients de SPC	Nom/Titre
Personne-ressource pour les projets de SPC	Nom/Titre
Personne-ressource pour l'architecture de SPC	Nom/tire (s'il y a lieu)
Pour obtenir de l'aide afin de remplir cette diapositive, n'hésitez pas à communiquer avec votre responsable des relations avec les clients <a href="http://service.ssc-spc.gc.ca/fr/contact/partclisupport/client-execs">http://service.ssc-spc.gc.ca/fr/contact/partclisupport/client-execs</a>	

## ANNEXE 4 :

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# Solution numérique algorithmique – Exigences liées à l'évaluation des incidences

### Renseignements généraux :

<https://www.canada.ca/fr/gouvernement/systeme/gouvernement-numerique/technologiques-modernes-nouveaux/utilisation-responsable-ai/evaluation-incidence-algorithmique.html>

1

Réaliser une évaluation de l'incidence algorithmique (EIA) pour le projet

<https://canada-ca.github.io/aia-eia-js/?lang=fr>

2

SAUVEGARDER les résultats

« Imprimer » en PDF

3

INCLURE les résultats aux intrants du CEAI

COURRIEL : [ZZCIOBDP@tbs-sct.gc.ca](mailto:ZZCIOBDP@tbs-sct.gc.ca)

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## ANNEXE 5 : Demande d'exemption

- ▶ *Dites-nous ce que demande cette exemption (par exemple, architecture de référence cible, norme, etc.).*
- ▶ *Décrivez quelles sont les architecture ou norme de référence cible pour lesquelles ont demande une exemption ou exception en expliquant pourquoi cette exemption est demandée. Expliquer pourquoi ces lignes directrices ne s'appliquent pas à votre ministère.*
- ▶ *Expliquez en quoi votre projet, solution ou proposition ne permettait que de soutenir le mandat de votre ministère?*

*Remarque : Vous pouvez insérer des pages supplémentaires, le cas échéant. Veuillez supprimer ces orientations au moment de remplir cette page.*

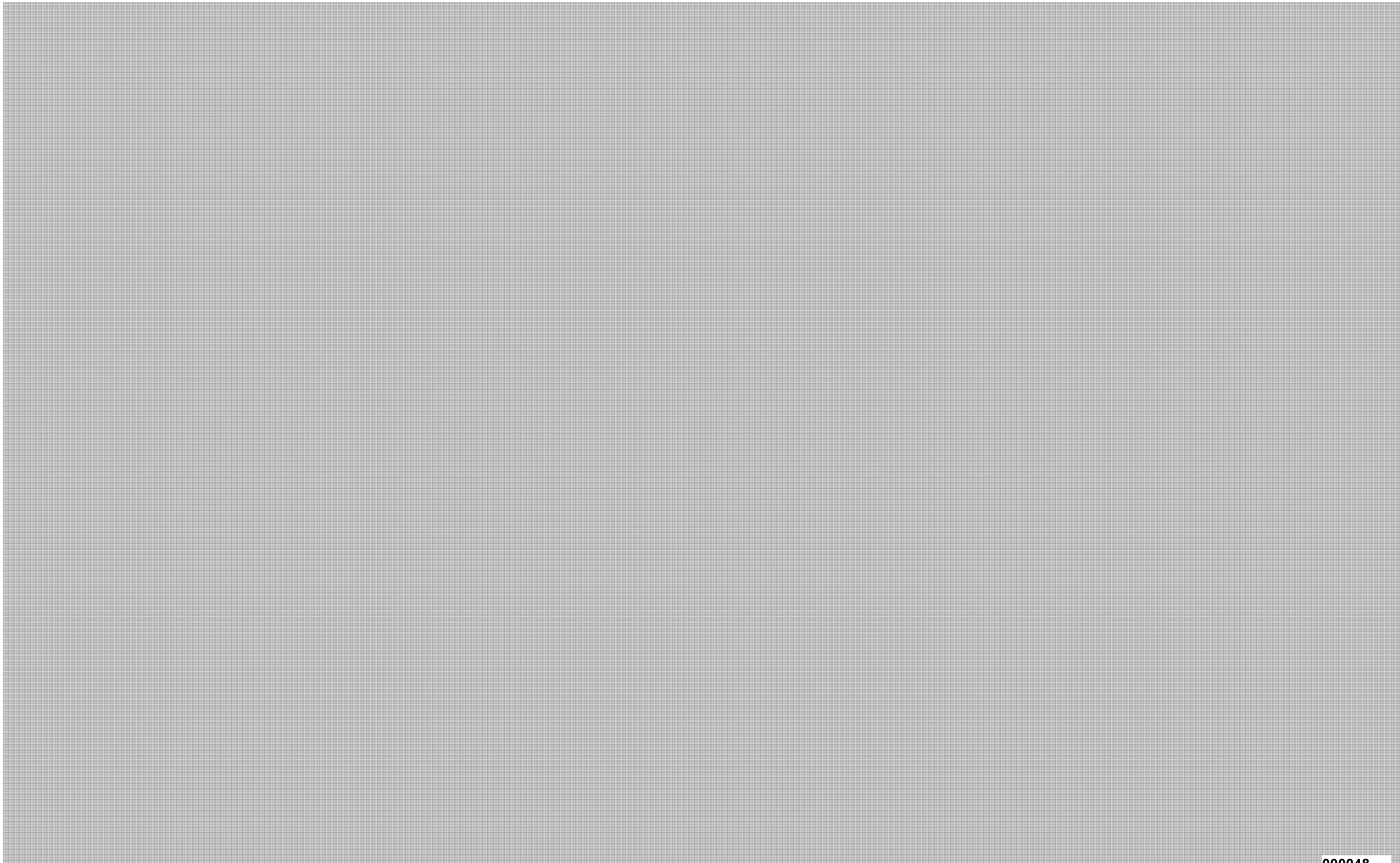
### **Y a-t-il un risque au projet si l'exemption n'est pas approuvée?**

- *Décrivez le risque et expliquez pourquoi le CEAI du GC devrait appuyer la demande d'exemption.*

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# Architecture de l'état cible - **DIAGRAMME**

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PowerPoint Slide Show - GC EARB IRCC Immigration and Citizenship Consultant Project.pptx - PowerPoint

PROTECTED B / PROTÉGÉ B

**Presenter Template**

 Treasury Board of Canada  
Secrétariat

 Secrétariat du Conseil du Trésor  
du Canada



**Government of Canada  
Enterprise Architecture Review Board (GC EARB)**

**Immigration, Refugees and Citizenship Canada (IRCC)  
Immigration and Citizenship Consultants  
Date: February 27, 2020**

Presentation for:	EARB Appearance:	Contact Information:
<input checked="" type="checkbox"/> Endorsement <input type="checkbox"/> Information <input type="checkbox"/> Exemption	<input checked="" type="checkbox"/> Initial <input type="checkbox"/> Follow-up <input type="checkbox"/> Final Architecture	<b>Presenter(s):</b> • (IRCC) Omar Subhani <a href="mailto:Omar.Subhani@cic.gc.ca">Omar.Subhani@cic.gc.ca</a>

Last Updated: June 7, 2019

GC Docs #31758070

Slide 1 of 30

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## Purpose of GC EARB Session

- ▶ The purpose of this presentation is to seek GC EARB endorsement to proceed with Information Technology (IT) enhancements in order to efficiently detect, analyze, track, and process administrative investigations of consultants or other representatives suspected of fraud or misrepresentation under the *Immigration and Refugee Protection Act* and *Citizenship Act*.

Slide 2 of 30

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## Background

- ▶ IRCC is required to strengthen compliance and enforcement in regards to immigration and citizenship consultants, [REDACTED]
- ▶ The number of open investigations to detect and investigate wrongdoing has risen in recent years and represents approximately 200 per year. These investigations can link to many applications for entry or status in Canada. As a result, IRCC's investigation unit is unable to keep up with the volumes to effectively detect, investigate, track, and manage cases.
- ▶ In addition, regulations are being drafted to authorize IRCC to issue administrative penalties to representatives found to be non-compliant, which are anticipated to come into force as early as Spring 2021. While the number of non-compliant decisions and administrative penalties issued on a yearly basis as a result of these investigations is not yet certain, it will not exceed 40 penalties against unscrupulous consultants and other third-parties in the first year.
- ▶ Enhancements to IT tools will support compliance efforts and allow officers across IRCC to make informed decisions when assessing applications for status in Canada as well as assist in the disruption of fraud networks by transforming the current manual, labour-intensive and unsystematic processes used to manage investigations.

Slide 3 of 30

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# Background

► As the department undertakes its Transformation agenda, new capabilities such as those described in this project need to balance near term needs with the future.

The proposed architecture:

- Leverages and reuses existing solutions within the department;
- Prioritizes data integrity (applicants, immigration consultants and 3rd parties).

Slide 4 of 30

Display Settings



## Future “To Be” State – GCMS Risks

- ▶ IRCC is seeking to de-risk its current legacy systems through a phased approach beginning with a Budget 2020 request currently under review. The content of that request includes:
  - ▶ Stabilize and Standardize
    - To achieve stable legacy systems and disaster recovery capacity; and
    - to build upon business process optimization and to achieve reduced “technical debt” that de-risks future system use, secure enterprise cloud connection, and key building blocks for the future system (e.g. reimagined business models and design work to guide the transition stage).
  - ▶ Planning for Transform and Transition (for future asks – Post April 1st, 2023) – to deliver an enterprise-wide platform, allowing full integration of new functionalities and onboarding of all lines of business.
  - ▶ However budget 2020 is still not yet approved and the Immigration Consultant project is to meet a ministerial mandate commitment for the near term.
  - ▶ Consequently, the solution architecture has minimized the number of GCMS changes and integration points in order to support the business requirements while minimizing risk to the system and adding additional technical debt.

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## Future “To Be” State

► **Tools for the detection of fraud and follow through investigations include:**

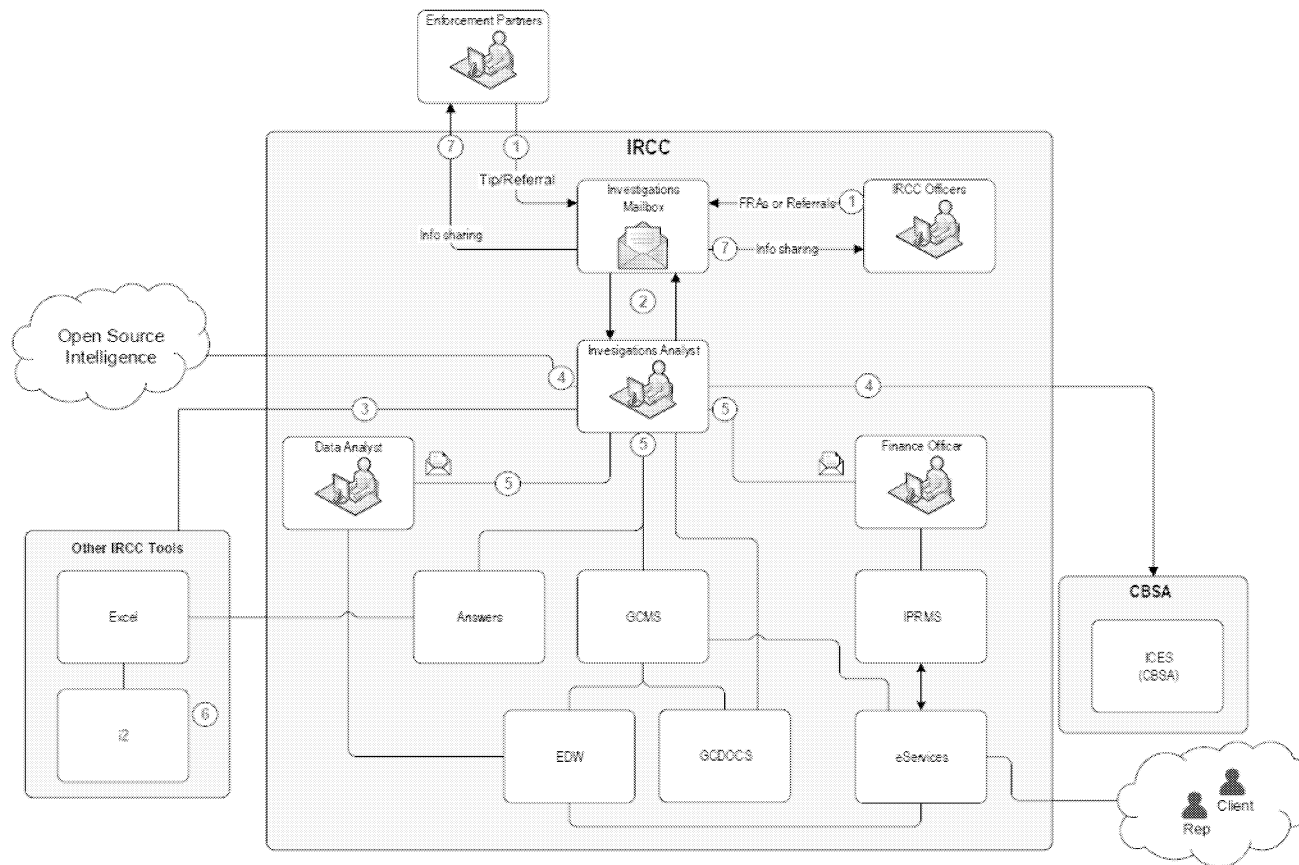
1. Investigation management solution with integrated analytics capability to track investigations.
2. Solution to manage Administrative Penalties (APs), integrated with the proposed investigation management solution.
3. Supporting IT functions for data collection:
  - Capture of Internet Protocol (IP) address;
  - Keyword searches of free text fields
  - Additional fields to capture information on representatives
  - Support credit card investigation requests

► **Solution Definition:**

The IT system to manage investigations of consultants/representatives and their clients and administration of penalties would integrate various forms of investigation tools to detect and investigate non-compliance and fraud. The solution will provide valuable investigation related information to various officers across IRCC such as indicators, client lists, decisions, analytical reports and briefs, link analysis and other relevant resources, as well as include functionality to administer APs.

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## Current Architecture - **DIAGRAM**



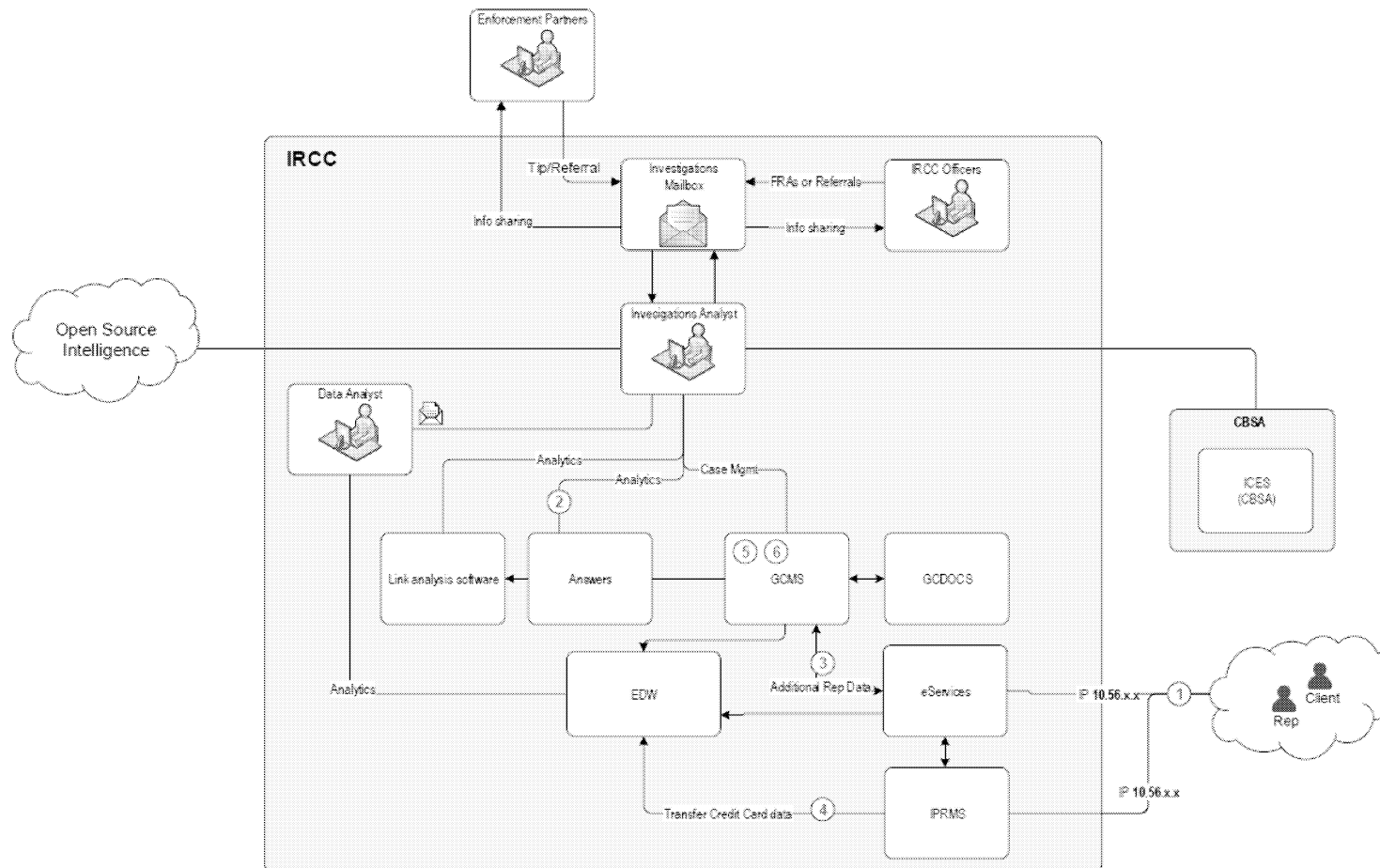
Note: Zoning and data sensitivity are not included given that IRCC will be compliant once GCMS moves to the EDC, which is expected in Q3 of FY20-21. The profile of the system is PBMM.

7

## Current Architecture

1. Enforcement partners and field officers submit tips/referrals via email to the IRCC's investigation unit.
2. The analyst reviews the tip to determine if there is sufficient information to proceed with an investigation.
3. If proceeding with an investigation, the case and evidence is tracked via Excel spreadsheets and Word documents stored in GCDOCS.
4. The analyst conducts open source searches (i.e. Google, social media, news articles, discussion forums, etc.) and accesses partner systems (i.e. ICES for entry/exit information) to gather supporting evidence.
5. The analyst also collects data from various sources including GCMS and Answers, and request data pulls by email from Finance and Enterprise Data Warehouse. This step is repeated as new leads develop that further the investigation. Analysts also flag applications and create info alerts instructing officers to contact Case Management Branch (CMB) for more information.
6. With the data collected, the analyst compiles all the data and imports the data into i2 Analyst's Notebook, an investigation analysis software, to visualize linkages and pinpoint nodes and networks of fraud.
7. Results of the investigation is shared back with the referring partner to pursue criminal investigations or to share risk and fraud indicators to officers in the field.

## Target State Architecture - DIAGRAM



## Target State Architecture – System Changes

### Inventory of system changes:

1. Capture the IP address at various points of online interaction between the applicants or representatives with the department (i.e. online applications, payments, portal enrolments, etc.)
2. Ability to conduct keyword searches of free text fields:
  - With some modifications to EDW schema exported for Investigations Data Analysts, unstructured textual data can be 'mined' using IRCC analytic tools
  - There is also an opportunity to evaluate other text 'mining' software/tools that may better suit business needs.
3. Additional fields in GCMS to collect information on representatives:
  - Additional data attributes can be added to eServices and GCMS applications as needed and be added to EDW extracts of GCMS data for analytical inputs.
4. Self-serve solution to retrieve payment information:
  - Data captured through IPRMS service can be added to the EDW eService extracts, which in turn can be 'linked' to application and client-centric data.
- 5/6. Enable users to leverage the existing case management system (GCMS) for the tracking and management of investigations and administrative penalties (Currently using MS Excel).
  - Leverage existing EDW integration for an analytics capability to uncover potential links unseen by surface-level analysis.
  - Systematically and efficiently communicate adverse information via verification activities and information alerts to field officers to improve decision-making on open applications.

## Option Analysis Summary – Deliverables

Deliverables	Option #1 - IRCC Proposed Architecture	Option #2 - Current CRM through Cloud Brokering Services	Option #3 - Open Source Micro Services Hosted in Public Cloud
<b>Investigation Management System</b>	<p>The investigation management system requirements are highly aligned with existing case management functionality within GCMS. Therefore the implementation process and support model are already in place. In addition, by continuing to have a singular case management system, IRCC maximizes potential future reuse given the proposed digital platform modernization programme tabled to Finance Canada and shared with TBS for Budget 2020</p> <p>Furthermore, Option 1 provides analytics capability to uncover potential links unseen by surface-level analysis, as well as systematically and efficiently communicate adverse information via verification activities and information alerts to field officers to improve decision-making on open applications.</p>	Current CRM solutions (e.g., GC Case) cannot provide the link analysis functionality required to support investigations. This would also result in duplication of case management data and add complexity to the integration of adverse information into GCMS.	Would require significant integration of IRCC data in order to provide analytics capability, as well as integration with GCMS in order to efficiently communicate adverse information via verification activities and information alerts to field officers to improve decision-making on open applications.
<b>System to manage Administrative Penalties</b>	Target is to leverage <u>existing</u> GCMS administrative penalty functionality to improve integration. This would also allow for reusability of existing AP functionality (i.e.: TFWP – IMP verification sub-tab in GCMS).	Would require the development or provision of an AP system.	Would require the development or provision of an AP system.
<b>Impact to Overall Project Schedule</b>	Ability to issue administrative penalties is required by Q1 FY21-22 and by leveraging existing internal solutions provides the least technical risk for capability delivery.	Earliest possible availability of SCED Architecture 2 would be Q3-Q4 20-21, thereby creating an additional risk for delivery.	Earliest possible availability of SCED Architecture 2 would be Q3-Q4 20-21, thereby creating an additional risk for delivery.

## Option Analysis Summary – Alignment

### Option #1 - IRCC Proposed Architecture

- ✓ Data remains tightly coupled internally and addresses the client's pain points in regard to the need to leverage multiple systems and data sources.
- ✓ Resource expertise in-house to develop functionalities.
- ✓ Can meet key timeframes related to regulatory changes.
- ✓ All data sources are in the on premise data centre which facilitate its integration to EDW and the link analysis tool.
- ✓ IRCC is currently leveraging GCMS to administer APs.
- ✗ GCMS case for change is acknowledged within and outside IRCC.
- ✗ Does not align with the TBS directive on cloud first.

### Option #2 - Current CRM through Cloud Brokering Services

- ✓ Aligns with TBS directives.
- ✓ Solution already endorsed by TBS.
- ✓ Limits potential Technical Debt on GCMS.
- ✗ Resource expertise would need to be developed.
- ✗ Integration with GCMS, EDW, IPRMS, AP system will be required.
- ✗ Greater complexity of the case management landscape within the Enterprise (i.e., multiple case management systems)
- ✗ Multiple tools to complete the investigation by the client as GCMS will remain a key part of their investigations both as a source of data and for inclusion of information for application decision makers.
- ✗ Cloud PBMM has limited capacity at IRCC and no definitive date has been set for a full production delivery.
- ✗ Development or procurement of new AP solution could put delivery in advance of regulatory changes at risk.

### Option #3 - Open Source Micro Services Hosted in Public Cloud

- ✓ Aligns with TBS Digital Directives.
- ✓ Solution already endorsed by TBS.
- ✓ Limits potential Technical Debt on GCMS.
- ✗ Expertise may not be available internally.
- ✗ Cloud PBMM is currently not in place at IRCC and no definitive date has been set for a full production delivery.

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## Detailed Information

### Anticipated Benefits / Outcomes

- 1) **Increase efficacy of investigations by:**
  - Providing officers with integrated IT tools that will allow for systematic detection and investigation of unscrupulous consultants and third parties.
- 2) **Increase efficiency of investigations by:**
  - Providing investigation stakeholders with the systems to track and manage investigation cases in a robust and secure manner ensuring data integrity remains high.
- 3) **Increase client service by way of protecting current and future applicants by:**
  - Creating the ability to apply corrective measures through implementing APs and carrying out consequences under IRPA and the *Citizenship Act*.

## Governance

### Departmental Governance Bodies

- ▶ The Immigration and Citizenship Consultants: Project Management Board (Director level) is responsible for the success and completion and benefit realization for this project.

### Business Owner

- ▶ Mike MacDonald, Associate Assistant Deputy Minister, Operations Sector

### Technical Owner

- ▶ Zaina Sovani, Assistant Deputy Minister and CIO, Transformation and Digital Solutions Sector

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## Risks and Mitigations

Project PCRA Score: 2

Organization OPMCA Level: 2

Risks	Mitigations	Prob.	Impact
1 If there are capacity issues due to competing priorities or infrastructure upgrades, leading to knowledgeable expertise or other resources not being available, then development of enhancements for systems could be delayed, which in turn would delay the IRCC's ability to strengthen its compliance and enforcement efforts.	IRCC has identified this initiative's IT changes as a top priority in the Department's "Must-do" prioritization. To mitigate the risk of other competing priorities, IRCC will build the schedule with the GCMS release schedule as a consideration and participate in departmental change management boards to ensure proper prioritization. The IT Project governance structure allows for business or IT issues to be escalated to senior management in an efficient manner for resolution.	L	M
2 An unplanned procurement requirement could result in increased costs and have an impact on the deployment schedule for IRCC and Shared Services Canada (SSC). Any resulting delays could have an impact on IRCC's ability to meet its business outcomes.	In order to mitigate this risk, there will be early engagement with Departmental IT resources, to define the business requirements. Where possible, IRCC will use existing contracts and leverage established Government of Canada and/or IRCC solutions to reduce this procurement risk. The Department is reaching out to SSC to identify IT requirements and timing.	L	M
3	To mitigate this risk, the Department will make decisions to respect the envelope or absorb overruns internally. Options that could leverage current IT discussions elsewhere in the Department are also being explored.	M	M
4 If there are delays in endorsement from the departments IT Security and/or Privacy groups, then development of enhancements for systems could be delayed.	To mitigate this risk, the Department has engaged with internal security and ATIP teams, and have conducted an initial Privacy Needs Assessment. Time to conduct a Security Assessment and Authorization and Privacy Impact Assessments have been added to the schedule for the project.	L	L

PCRA: Project Complexity and Risk    OPMCA: Organizational Project Management Capacity

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## IRCC - Immigration and Citizenship Consultant Project

### Executive Summary

☒ **Endorsement**  
☐ Information

PCRA: 2  
 OPMCA: 2

One time: \$19M  
 On going: \$2.95

Overall:  
☐

**Type of Cloud**  
☐ SaaS ☐ PaaS ☐ IaaS ☒ Not Applicable

**Data Classification**  
☐ Unclassified ☐ Protected A ☒ Protected B ☐ Other

### Summary of Proposal

As part of the minister's mandate letter, the department is trying to develop a system to manage Immigration Consultant investigations.

- Collect additional information in existing systems (GCMS, eServices, IPRMS) in order to assist investigations
- Provisioning a Link Analysis System to support the investigations once an RFP is completed
- Leverage GCMS to track investigations of consultants
- Leverage GCMS for Administrative Penalties management system for regulations that are not finalized till Spring 2021 at earliest

### Enterprise Architecture Assessment

▲	Business	<ul style="list-style-type: none"> <li>Aligns with request from ministers mandate letter</li> <li>Replaces a low volume but Excel based process with a more integrated approach</li> </ul>
▲	Information	<ul style="list-style-type: none"> <li>Changes to existing system data collection to support investigation seem aligned with investigative needs and leverage existing data warehouse investments</li> <li>They indicate that they are already PCI DSS compliant, so the additional Credit Card information shouldn't be an information storage issue</li> </ul>
○	Application	<ul style="list-style-type: none"> <li>Link Analysis Software has not been selected and cannot be evaluated. This function would likely benefit from a machine learning solution</li> <li>Proposed architecture reviewed by Chief Architect, but not DARB at this time</li> <li>Further options analysis should be conducted for Administrative Penalties administration, because it is not a department specific function that may be better suited for a mutli-departmental system on GCcase or another SaaS solution. This functionality is not anticipated to be needed till more than 12 months</li> </ul>
■	Technology	<ul style="list-style-type: none"> <li>Solution is targeting a legacy on-premises data center</li> <li>Leveraging the GCMS solution platform that previous flagged by reports for reliability</li> </ul>
○	Security & Privacy	<ul style="list-style-type: none"> <li>Current legacy datacenter does not align to ITSG zoning, but will be migrated to an End State Datacenter in Q3 20-21</li> </ul>

### GC EA Recommendation

**Endorsement:** IRCC should proceed with enhancements to existing systems to support the investigations.

### Conditions

1. IRCC to come back to GC EARB with further options analysis for Administrative Penalties System in late 2020, prior to implementation
2. IRCC to come back to GC EARB with Link Analysis Software requirements before the RFP is launched, and give considerations for AI options
3. IRCC to come back to GC EARB to present the roadmap for GCMS replacement going forward in fiscal 20-21

Arch:  
 ▲ Fully ☐ Partially ☒ Not

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# ANNEX

APPENDIX 1	GC Digital Standards	<ul style="list-style-type: none"><li>• <b>Required</b> for GC EA Assessment</li><li>• NOT to be part of Presentation</li></ul>
APPENDIX 2	GC Architectural Standards	<ul style="list-style-type: none"><li>• <b>Required</b> for GC EA Assessment</li><li>• NOT to be part of Presentation</li></ul>
APPENDIX 3	Additional Project Details	<ul style="list-style-type: none"><li>• <b>Required</b> for GC EA Assessment</li><li>• NOT to be part of Presentation</li></ul>
APPENDIX 4	Algorithmic Impact Assessment	<ul style="list-style-type: none"><li>• Complete as <b>required</b></li><li>• NOT to be part of Presentation</li></ul>
APPENDIX 5	Exemption Request Form	<ul style="list-style-type: none"><li>• Complete as <b>required</b>.</li></ul>

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## APPENDIX 1: Digital Alignment

▲ ① <b>Design with users</b>	▲ ⑥ <b>Build in accessibility from the start</b>
<ul style="list-style-type: none"> <li>Research with users to understand their needs and the problems we want to solve.</li> <li>Conduct ongoing testing with users to guide design and development.</li> </ul>	<ul style="list-style-type: none"> <li>Services should meet or exceed accessibility standards.</li> <li>Users with distinct needs should be engaged from the outset to ensure what is delivered will work for everyone.</li> </ul>
○ ② <b>Iterate and improve frequently</b>	▲ ⑦ <b>Empower staff to deliver better services</b>
<ul style="list-style-type: none"> <li>Develop services using agile, iterative and user-centered methods.</li> <li>Continuously improve in response to user needs.</li> <li>Try new things, start small and scale up.</li> </ul>	<ul style="list-style-type: none"> <li>Make sure that staff have access to the tools, training and technologies they need.</li> <li>Empower the team to make decisions throughout the design, build and operation of the service.</li> </ul>
○ ③ <b>Work in the open by default</b>	▲ ⑧ <b>Be good data stewards</b>
<ul style="list-style-type: none"> <li>Share evidence, research and decision making openly.</li> <li>Make all non-sensitive data, information, and new code developed in delivery of services open to the outside world for sharing and reuse under an open license.</li> </ul>	<ul style="list-style-type: none"> <li>Collect data from users only once and reuse wherever possible.</li> <li>Ensure that data is collected and held in a secure way so that it can easily be reused by others to provide services.</li> </ul>
○ ④ <b>Use open standards and solutions</b>	▲ ⑨ <b>Design ethical services</b>
<ul style="list-style-type: none"> <li>Leverage open standards and embrace leading practices, including the use of open source software where appropriate.</li> <li>Design for services and platforms that are seamless for Canadians to use no matter what device or channel they are using.</li> </ul>	<ul style="list-style-type: none"> <li>Make sure that everyone receives fair treatment.</li> <li>Comply with ethical guidelines in the design and use of systems which automate decision making (such as the use of artificial intelligence).</li> </ul>
▲ ⑤ <b>Address security and privacy risks</b>	▲ ⑩ <b>Collaborate widely</b>
<ul style="list-style-type: none"> <li>Take a balanced approach to managing risk by implementing appropriate privacy and security measures.</li> <li>Make security measures frictionless so that they do not place a burden on users.</li> </ul>	<ul style="list-style-type: none"> <li>Create multidisciplinary teams with the range of skills needed to deliver a common goal.</li> <li>Share and collaborate in the open. Identify and create partnerships which help deliver value to users.</li> </ul>

Architectural Alignment:  
▲ Fully ○ Partially ■ Not

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**BUSINESS Alignment**



<ul style="list-style-type: none"> <li>✓ Define program services as business capabilities to establish a common vocabulary between business, development, and operation</li> <li>✓ Identify capabilities that are common to the GC enterprise and can be shared and reused</li> <li>✓ Model business processes using Business Process Modelling Notation (BPMN) to identify common enterprise processes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Publish a project glossary for all stakeholders. Requirements and project artifacts to be articulated in this established common language for widespread comprehension.</li> <li>▪ Project aligned with the Strategic layer on the Policy &amp; Legislative Framework Management; the Service layer on the Client Communication, Processing, and Compliance &amp; Investigation Management; the Supporting layer on the Program Management, Change Management, Workload Management, and Risk &amp; Internal Compliance Management.</li> <li>▪ Document current and future state business processes using BPMN and leverage existing department business processes, where applicable. Requirements elicitation will also be supported by user stories</li> </ul>
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## APPENDIX 2: GC Architectural Standards

## BUSINESS Alignment

(Please check ☒ all that apply)

2 - Design for Users First and Deliver with Multidisciplinary Teams	HOW will this be achieved?
✓ Focus on the needs of users, using agile, iterative, and user-centred methods	<ul style="list-style-type: none"> <li>▪ Consultations and user stories will steer detailed requirements to be user-centric in nature. Mock-ups and designs to be shared with clients early on to promote engagement and UX considerations.</li> </ul>
✓ Conform to both accessibility and official languages requirements	<ul style="list-style-type: none"> <li>▪ All applications are being developed as multi-lingual, English and French.</li> <li>▪ Accessibility testing will be performed to meet at a min WCAG 2.0 AA</li> <li>▪ Use of WAI-ARIA tags to meet accessibility requirements.</li> </ul>
✓ Include all skillsets required for delivery, including for requirements, design, development, and operations	<ul style="list-style-type: none"> <li>▪ Operations and Policy working groups to solidify future-state business processes, detailed requirements and to identify operational impacts.</li> <li>▪ Joint design and development sessions to identify design/technical limitations early on.</li> </ul>
✓ Work across the entire application lifecycle, from development and testing to deployment and operations	<ul style="list-style-type: none"> <li>▪ Dedicated resources identified across stakeholders and technical teams to ensure consistency and momentum in the delivery of the project.</li> <li>▪ Regular touch-points with end users and business owners in the form of UX considerations, User Acceptance Testing (UAT), deployment, and training.</li> <li>▪ Align to organization's Application Lifecycle Development process.</li> </ul>
✓ Ensure quality is considered throughout the Software Development Lifecycle	<ul style="list-style-type: none"> <li>▪ Leverage organization's Quality Management team and utilize automated testing where applicable.</li> </ul>
✓ Ensure accountability for privacy is clear	<ul style="list-style-type: none"> <li>▪ Application is being developed as a secure online application requiring GoC authentication.</li> <li>▪ Terms and conditions of the application are reviewed with IRCC legal.</li> <li>▪ PIA to be completed as part of the application development process and SA&amp;A accreditation.</li> </ul>
✓ Encourage and adopt Test Driven Development (TDD) to improve the trust between Business and IT	<ul style="list-style-type: none"> <li>▪ Unit tests will be written as part of the development process.</li> </ul>

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## BUSINESS Alignment

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## APPENDIX 2: GC Architectural Standards

## INFORMATION Alignment

(Please check ☒ all that apply)

4 – Data Collection	HOW will this be achieved?
✓ Ensure data is collected in a manner that maximizes use and availability of data	▪ Data collected is extracted and loaded into the corporate EDW where it is open and available for business analytical purposes.
✓ Ensure data collected aligns to existing enterprise and international standards	▪ Data stored will have applied the necessary encoding to support the data requirements.
<input type="checkbox"/> Where enterprise or international standards don't exist, develop Standards in the open with key subject matter experts	
✓ Ensure collection of data yields high quality data as per data quality guidelines	▪ Data collected will be validated and stored as per business and operational reporting requirements.
✓ Ensure data is collected through ethical practices supporting appropriate citizen and business-centric use	▪ Application will be designed to only collect data necessary in order to facilitate robust investigations to disrupt consultant wrongdoing.
<input type="checkbox"/> Data should only be purchased once and should align with international standards	▪
✓ Where necessary, ensure collaboration with department/ agency data stewards/ custodians, other levels of government, and Indigenous people	▪ We will follow departmental data management policies.

5 – Data Management	HOW will this be achieved?
✓ Demonstrate alignment with enterprise and departmental data governance and strategies	▪ Data collected in support of this project will aim to limit duplication of data management processes. This proposed solution aims to leverage the existing and extensive biographic and application related data being collected for clients/ reps and any Immigration, Citizenship, Refugee and Passport Applications.
✓ Ensure accountability for data roles and responsibilities	▪ User Access is controlled through an enterprise process to ensure accountability.
✓ Design to maximize data use and availability	▪ Only necessary data will be collected. Data will be stored in the eServices and GCMS case processing repository and extracted into the EDW for useability.

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APPENDIX 2:

GC Architectural Standards

INFORMATION

Alignment

(Please check ☒ all that apply)

6 – Data Storage	HOW will this be achieved?
✓ Ensure data is stored in a secure manner in accordance with the National Cyber Security Strategy, and the Privacy Act	▪ Data will be stored in restricted zone and encrypted in transit and at rest in accordance to CSE encryption standards.
✓ Follow existing retention and disposition schedules	▪ All data captured will adhere to processes for disposing and archiving of data as per established Retention and Disposition schedules.
✓ Ensure data is stored in a way to facilitate easy data discoverability, accessibility and interoperability	▪ Data is available to be retrieved through ETL or APIs as per any MOU.

7 – Data Sharing	HOW will this be achieved?
<input type="checkbox"/> Data should be shared openly by default as per the Directive on Open Government	
<input type="checkbox"/> Ensure government-held data can be combined with data from other sources enabling interoperability and interpretability through for internal and external use	▪ Data collected from all applicable sources for the purpose of supporting these IRCC investigations will now be integrated with existing GCMS stored data, thereby increasing interoperability of internal Investigation. However, due to the sensitivity of data supporting these investigations, it does not allow for external use.
✓ Reduce the collection of redundant data	▪ Data collected in support of this project will aim to limit duplication of data management processes. This proposed solution aims to leverage the existing and extensive biographic and application related data being collected for clients/ reps and any Immigration, Citizenship, Refugee and Passport Applications.
✓ Reuse existing data where possible	▪ Same as above
<input type="checkbox"/> Encourage data sharing and collaboration	

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## APPENDIX 2: GC Architectural Standards

## APPLICATION Alignment

(Please check ☒ all that apply)

8- Use open standards and solutions by default	HOW will this be achieved?
<input type="checkbox"/> Where possible, use open standards and open source software first.	
✓ If an open source option is not available or does not meet user needs, favour platform-agnostic COTS over proprietary COTS, avoiding technology dependency, allowing for substitutability and interoperability	▪ If open source tools or software may be used to achieve the project's expected outcome, they will be evaluated and selected before pursuing proprietary products or services.
✓ If a custom-built application is the appropriate option, by default any source code written by the government must be released in an open format via Government of Canada websites and services designated by the Treasury Board of Canada Secretariat	▪ If open source software is used we will abide by the respective open source license and government policies.
✓ All source code open must be released under an appropriate open source software license	▪ If open source software is used we will abide by the respective open source license and government policies.
✓ Expose public data to implement Open Data and Open Information initiatives	▪ No data captured as part of this project is known to be open outside of ATIP requested data.

9 - Maximize Reuse	HOW will this be achieved?
✓ Leverage and reuse existing solutions, components, and processes	▪ Reusing integration processes/technology as well as the core case management system.
<input type="checkbox"/> Select enterprise and cluster solutions over department-specific solutions	
✓ Achieve simplification by minimizing duplication of components and adhering to relevant standards	▪ Simplification will be achieved by reusing integration processes/technology as well as the core case management system. The department will adhere to relevant standards.
✓ Inform the GC EARB about departmental investments and innovations	▪ Following the IRCC ARC process, any investments or innovations will be brought to the IRCC EA group.
<input type="checkbox"/> Share code publicly when appropriate, and when not, share within the Government of Canada	

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(Please check ☒ all that apply)

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## APPENDIX 2: GC Architectural Standards

## TECHNOLOGY Alignment

(Please check ☒ all that apply)



11 - Use Cloud first*	HOW will this be achieved?
<input type="checkbox"/> Enforce this order of preference: Software as a Service (SaaS) first, then Platform as a Service (PaaS), and lastly Infrastructure as a Service (IaaS)	▪ N/a
<input type="checkbox"/> Enforce this order of preference: Public cloud first, then Hybrid cloud, then Private cloud, and lastly non-cloud (on-premises) solutions	▪ N/a
<input type="checkbox"/> Design for cloud mobility and develop an exit strategy to avoid vendor lock-in	▪ N/a
12 - Design for Performance, Availability, and Scalability	HOW will this be achieved?
✓ Design for resiliency	▪ GCMS is based on the Siebel platform that has built in resilient processing services on premise.
✓ Ensure response times meet user needs for availability	▪ Solution will meet any availability and limit to any scheduled downtime in accordance with any defined SLA.
<input type="checkbox"/> Support zero-downtime deployments for planned and unplanned maintenance	
✓ Use distributed architectures, assume failure will happen, handle errors gracefully, and monitor actively	▪ Monitoring and alerting services available through the GCMS IT operations and incident management teams will be leveraged.

\* NOTE: As per CIO of Canada: All OpenText and SAP renewals will now be done through the new Cloud First policy, which states Software As A Service (SaaS).

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## SECURITY & PRIVACY Alignment

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## APPENDIX 3: Additional Project Details

### Request Summary Information

TBS Project/Activity ID (from IT PLAN)	27672		
Concept Case (ENDORSED ?)	YES <input checked="" type="checkbox"/>	DATE: 2019-08-30	NO <input type="checkbox"/> REASON:
Timeline	Planned Start Date: 03-2020		Planned End Date: 12-2022
Cost Summary	One Time project cost: \$19.00M	(TB Sub)	On-going (annual) costs: \$2.95M
Funding Source	A-Base <input type="checkbox"/>	B-Base <input checked="" type="checkbox"/>	Other:
Current Gate*	Gate 3: Business Case and General Readiness		
On schedule?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	

### Departmental Architecture

Do you have a Departmental Architecture Review Board (ARB)?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
Who is the Chief Architect?	IRCC - Omar Subhani <a href="mailto:Omar.Subhani@cic.gc.ca">Omar.Subhani@cic.gc.ca</a>	
Has the Departmental EA and Architecture Review Board sanctioned the preferred Solution Architecture option?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

**NOTE:** Please provide a copy of your ARB Minutes and Record of Decision

\* TBS Gates:  
<https://www.canada.ca/en/treasury-board-secretariat/services/information-technology-project-management/project-management/guide-project-gating-it-enabled-projects.html>

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## APPENDIX 3:

### Shared Services Canada (SSC) Involvement

#### SSC Scope

<i>What is the scope of work required by Shared Services Canada?</i>	To provide the requested server, storage and network infrastructure to operate proposed IRCC systems and subsystems.
<i>When/How has SSC been involved in this project?</i>	SCC will be engaged once timelines and project levels have been identified in ensuring that resources are designated to the project.
<i>What SSC Services are to be impacted or consumed?</i>	SCC will be engaged once timelines and project levels have been identified in ensuring that resources are designated to the project.
<i>What are the dependencies and assumptions?</i>	SSC can provide any necessary infrastructure within the timelines identified in the timelines of the project.

#### SSC Internal Governance

<i>Presentation title:</i>	<i>Governance Committees:</i>
----------------------------	-------------------------------

#### SSC Contact

SSC BR number (if available)	
SSC Client Executive contact	Joanne Faucher
SSC project contact	
SSC architecture contact	

*For help in completing this slide feel free to contact your Client Executive <http://service.ssc-spc.gc.ca/en/contact/partclisupport/client-execs>*

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## APPENDIX 4:

# Algorithmic Digital Solution - Impact Assessment Requirements

**Background Information :**

<https://www.canada.ca/en/government/system/digital-government/modern-emerging-technologies/responsible-use-ai/algorithmic-impact-assessment.html>

- 1 Complete AIA for project** <https://canada-ca.github.io/aia-eia-js/>
- 2 SAVE results** "Print" to PDF
- 3 INCLUDE results with EARB intake** EMAIL: [ZZCIOBDP@tbs-sct.gc.ca](mailto:ZZCIOBDP@tbs-sct.gc.ca)

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## Appendix 5 – Acronym Definitions

<b>AP</b>	Administrative Penalties
<b>CBSA</b>	Canada Border Service Agency
<b>EDC</b>	Enterprise Data Centre
<b>EDW</b>	Enterprise Data Warehouse
<b>GCDocs</b>	Government of Canada Information Management Repository
<b>GCMS</b>	Global Case Management System
<b>i2</b>	IBM i2 Analyst's Notebook
<b>ICES</b>	Integrated Customs Enforcement System
<b>IP</b>	Internet Protocol
<b>IPRMS</b>	Integrated Payment Revenue Management System
<b>IRCC</b>	Immigration, Refugees and Citizenship Canada
<b>Rep</b>	Representative/Consultant

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## **GC Enterprise Architecture Review Board (EARB)**

### **Record of Discussion**

**March 2, 2020, 9:00 a.m. to 12:00 p.m.**

**90 Elgin Street, 2<sup>nd</sup> Floor, Room 2068**

#### **Item 1: Opening Remarks from the Co-Chairs**

Marc Brouillard (TBS)

Luc Gagnon(SSC)

Co-chairs, Marc Brouillard and Luc Gagnon, welcomed members.

The Record of Discussion for the meeting of December 19, 2019 was endorsed.

The co-chair provided the following updated regarding new Deputy Minister committees for governance. The following new committees were announced: clerk committee on digitization; DM CEPP will now be a clerk committee chaired by Peter Wallace and Lorie MacDonald; there is a new committee on Core Services which will focus on enabling high priority digital initiatives; new committee called Governance in a Digital Age; and a new committee on Procurement. They should be up and running by mid-April 2020.

#### **Item 2: CBSA – Case Assessment and Revenue Management (CARM follow-up)**

Christian Figueredo (CBSA)

The purpose of this presentation was to provide GC EARB an information update, following the endorsement of the cloud hosting solution for Protected B data for CARM in November of 2018, in order to seek GC EARB's continuing endorsement.

#### **Feedback**

- Discussion centered on the mitigation of data migration risks. Presenters indicated that they are actively working on risk assessment and that the majority of their data will be migrated at release 2. They are leveraging point in time data to continuously monitor SA&A, and they are advising their upper management of the risks involved. An SA&A is being done for each release and protection controls are being considered at each phase. They don't have a tool to capture this information, currently they are using Excel. AWS certifications have been used and they indicated that SCED is not end to end, SCED connectivity has been defined as use case 5. Elizabeth Rhodenizer offered to share lessons learned from their legacy application migration.
- Members discussed the importance of having a data exit strategy. The presenters indicated that this was part of their contractual agreement with Deloitte therefore this has been addressed.
- Members inquired if there would be one client business number assigned and if CFIA was considered. CFIA is not within the scope of this CARM project. A customs licence broker number will be used which is separate to this CARM project.

- Members raised questions regarding the use of APIs and whether this was part of CBSA's long term strategy. With each phase CBSA is looking at implementing API's where it makes sense. In six months they will have a better grasp of where API's can be used.
- It was noted that the single sign on being used is DCAM.
- It was noted that end users are being engaged to perform UAT.

**Decision: Endorsed**

**Action:** ISED to come to GC EARB to talk about their strategy.

**Lead:** Wendy Leasko

**Action:** CBSA to connect with OCG (FMT) to discuss SAP transport layer for information sharing purposed.

**Lead:** Christian Figueredo, CBSA

**Condition:** CBSA to present SA&A with service provider access to OCIO for endorsement with conditions.

**Lead:** Christian Figueredo, **CBSA**

**Item 3: TBS – A Framework for Government-wide Data Governance and Stewardship**

Natalie McGee (TBS)

The purpose of the presentation was to introduce the government-wide framework, including data governance and stewardship, for TBS work on the development of principles, policies and guidance with respect to "prescribing enterprise-wide data standards" and to seek endorsement on the approach to use PROVINCE/TERRITORY as a pathfinder.

**Feedback**

- Members recommended that this be centralised through a single API.
- Members indicated that the framework needs to be defined.
- Members asked if there are conformance suites or just general API pieces. It was indicated that it's a framework on how to make it easier to use.
- A comment was made that it needs to be clear that this is for government use, not for provinces or citizens having to use it.
- It was indicated that the alpha code came from Canada Post
- Asking to endorse this example as a pathfinder.

**Decision: Province code as pathfinder for data governance is endorsed**

**Action:** Return to GC EARB a work plan of engagement for different gov't tables and governance experts, and ID target at the end of that project.

**Lead:** Natalie McGee, TBS

**Action:** TBS to engage CDO council and PCO data leads to discuss scope and mandate.

**Lead:** Natalie McGee, TBS

**Item 4: TBS - Extensions to the Directive on Service and Digital**

Natalie McGee (TBS)

Scott Levac (TBS)

Dan Cooper (TBS)

The purpose of the presentation was to seek endorsement on new policy instruments: amendments to the Directive on Service and Digital; Appendix F - Standard on Information Technology User and Workspace Profiles; Appendix G - Standard on Information Technology Profile Entitlements.

**Feedback**

- It was stated that SSC is doing a gap analysis now and room is being left for a transition.
- Departmental CIOs should respect the profiles, and any exceptions will need to bring them to GC EARB.
- Members asked PSC how their experience was doing the personas. PSC indicated it went well for them and they were able to ID unique personas.
- Members inquired if this is to be applied to special cases. It was indicated that all personas can go through a sub-selection.

**Decision: Endorsed****Item 5a: ESDC – Wave 2 contact Centre Migrations Based on SSC Strategy**

Trevor Milne (ESDC)

James Heffernan (ESDC)

Mathiew Leprohon (ESDC)

Leila Ghobril (ESDC)

The purpose of the ESDC presentation was to seek GC EARB **endorsement** for ESDC to onboard three (3) additional Tier 2 contact centres onto SSC's Hosted Contact Centre Solution (HCCS): National Identity Services; National Services; and Regional Enquiry Units.

**Feedback**

- Members inquired about the call volumes. EI is 17-18M/year auto fix; 4m agent; Pensions 7M/year, demand for agents is increasing, ECC: 500K/year, but reduced to 30% with new system, calls times went from 4 minutes to 1 minutes, NIDS is comparable to ECC, and is not at risk of overwhelming/overloading the existing system.
- Members asked if the system is fully fault tolerant and resilient in the cloud. ESDC indicated yes, full redundancy.
- Co-chairs indicated that endorsement of integration of 3 tier 2 into Tier 1 instance is given. SSC and/or ESDC must return to GC EARB if they are going to be separate Tier 1 instance.

**Decision: Endorsed if ESDC uses the existing instance of this product, otherwise they must return to GC EARB to justify the need for separate instances**

**Item 5b: SSC – Contact Centre**

## Tom Socco (SSC)

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The purpose of the presentation was to provide an update on the status of the SSC Contact Centre modernization plan and obtain endorsement of the near-term plan for: Remaining Tier 1 Contact Centres; End of Life (EOL) / End of Support (EOS) Contact Centres; Contact Centres on expiring contracts and establishing a continuous evergreening approach.

### Feedback

- A remark was made that retraining staff will be an important issue
- Members inquired if SSC have the money to do this, or does the department pay for it. Some cases have been covered
- Members commented that HCCS seems to be overkill for regional enquiries
- Members indicated that better definition of the Tiers and how to assess them is required.
- SSC indicated that timing has been the biggest issue, and that departments are focussing on the cloud. Members indicated that things shouldn't be rushed for the sake of timelines.

### **Decision: SSC strategy NOT endorsed**

**Action:** SSC to expand the definitions of 3 tiers based on common set of requirements for each tier and return to GC EARB to re-present their strategy.

**Lead:** Tom Socco, SSC

**Action:** SSC, with CRA, to return to GC EARB to provide findings from two pilots, integrated strategy to define best solution by tier for government department.

**Lead:** Tom Socco, SSC

**Decision:** 3 tier 2 into HCCS for ESDC is endorsed (see 5a).

**Action:** TBS to review TBS condition and funding authorities.

**Lead:** Floyd Pushelberg (TBS) to follow-up

## **Item 6: SSC – ITSM Tool Project**

Frances Archambault (SSC)

Pierre Ferland (SSC)

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The purpose of the presentation was to provide an update on the SSC ITSM tool project. To seek GC EARB endorsement of the ITSM tool project next steps. To position the project for SSC's Project Management Board Gate 3 approval (March 27, 2020)

### Feedback

- It was stated that there are no named licensing or concurrent licences. Will be located at EDC [REDACTED] The contract includes a "huge envelope of professional services". There is currently no scheduled time for moving to the cloud.
- Members inquired if there is any guidance for department that don't currently have an SAAS solution. TBS's position is that they will enforce all departments integrating to the

same platform, and that any new investments must look at what SSC has done with ITSM tool project.

- No Onboarding process has been built and SSC is still working on the prioritization. It was noted that everyone is onboarded to the licensing.
- ESDC indicated that they could be used as a large partner test.
- SSC indicated that they need feedback from departments on what other systems they will need to integrate with.

### **Decision: Endorsed**

**Enterprise Decisions:** Departments looking to update ITMS solution need to consider the SSC ISTM tool as a viable option, if not selected, the department must then come to GC EARB for endorsement.

### **Item 7: SSC – Apple Siri GC-wide Deployment**

Robert MacPhail (SSC)

Due to time limitations, this item was deferred to the next meeting.

### **Item 8a: IRCC – Immigration & Citizenship Consultations (Consent Agenda Item)**

The purpose of this presentation is to seek GC EARB endorsement to proceed with Information Technology (IT) enhancements in order to efficiently detect, analyze, track, and process administrative investigations of consultants or other representatives suspected of fraud or misrepresentation under the *Immigration and Refugee Protection Act* and *Citizenship Act*.

### **Feedback**

The following comments/questions were received in response to email sent via the Secretariat, soliciting member approval.

### **CCCS Feedback**

- The CCCS endorses the TBS OCIO recommendation that, IRCC should proceed with enhancements to existing systems to support the investigations while minimizing changes to GCMS.
- CCCS also recommend that a 4th criterion be added to the list of conditions that the recommendation is based on:
  1. IRCC to come back to GC EARB with further options analysis for Administrative Penalties System in late 2020, prior to finalizing design
  2. IRCC to come back to GC EARB with Link Analysis Software requirements before the RFP is launched, and give considerations for AI options
  3. IRCC to come back to GC EARB and other relevant committees to present the roadmap for GCMS replacement going forward in fiscal 20-21
  4. IRCC consult with the CCCS in regards to the above 3 conditions, in order to confirm that ITSG-33 is being applied appropriately to those activities.

- The recommendation for the 4th condition is based on CCCS' review of the attached strategy. Specifically, the described approach for identifying appropriate Access Management and Encryption solutions is not clear, and we believe this will be paramount to the architecture design.
- One final observation, Slide 27 indicates that the Departmental EA and Architecture Review Board has not sanctioned the preferred Solution Architecture option. IRCC may wish to review that answer to either confirm it's correct or provide any more detail.

#### **Public Service Commission of Canada feedback**

- Endorsed with the conditions as listed on slide 15 in addition to the assumption that what is listed as enhancements will not be costed out as listed on page 27 (one time project costs \$19.0M and ongoing \$2.95M).
- It would be assumed that if presented in person, IRCC would be able to explain that the cost for the enhancements as described would be a fraction of the costing presented on slide 27.
- If PSCCs read of this is not aligned with IRCC's intent, then PSCC highly recommends EARB discusses this project in-person rather than secretarially.

#### **Decision: Endorsed**

#### **Conditions:**

1. IRCC to come back to GC EARB with further options analysis for Administrative Penalties System in late 2020, prior to finalizing design
2. IRCC to come back to GC EARB with Link Analysis Software requirements before the RFP is launched, and give considerations for AI options
3. IRCC to come back to GC EARB and other relevant committees to present the roadmap for GCMS replacement going forward in fiscal 20-21
4. IRCC consult with the CCCS in regards to the above 3 conditions, in order to confirm that ITSG-33 is being applied appropriately to those activities.

#### **Item 8b: HC – Special Access Program (Consent Agenda Item)**

Due to time limitations, this item was deferred to the next meeting.

#### **Item 8c: TBS – Updated Windows 7 and 2008 Exemption Summary (Consent Agenda Item)**

Due to time limitations, this item was deferred to the next meeting.

#### **Item 9: Closing Remarks**

Marc Brouillard (TBS)  
Luc Gagnon (SSC)

The co-chairs thanked members for attending.

The next meeting will be on March 17, 2020.



## Final Attendance

Department	Last Name	First Name	Role	Attended
Canada School of Public Service	Allison	Christopher	Presenter	Yes
Canada Border Services Agency	Anawati	Lisa	Other	Yes
Shared Services Canada	Archambault	Frances	Other	Yes
Canada Border Services Agency	Assaad	Zeina	Other	Yes
Treasury Board of Canada Secretariat	Bacon	Yves	Member	No
Treasury Board of Canada Secretariat	Bashir	Imraan	Ex-Officio	Yes
Treasury Board of Canada Secretariat	Begley	Fred	Member	No
Department of National Defence	Blais-Parent	Gilbert	Observer	Yes
Shared Services Canada	Bourguignon	Pierre	Alternate	Yes
Shared Services Canada	Bouma	Celeste	Presenter	Yes
Library and Archives of Canada	Bouvier	Dominique	Member	No
Treasury Board of Canada Secretariat	Brouillard	Marc	Co-Chair	Yes
Public Services and Procurement Canada	Buckler	Silver	Presenter	Yes
Department of Foreign Affairs, Trade and Development	Casey	Kristina	Member	No
Library and Archives of Canada	Charbonneau	Normand	Member	No
Treasury Board of Canada Secretariat	Cooper	Dan	Ex-Officio	Yes
Treasury Board of Canada Secretariat	Delorme	Valerie	Secretariat	Yes
Global Affairs Canada	Denis	Gary	Observer	Yes
Canada Border Services Agency	Doan	Minh	Member	No
Shared Services Canada	Ferland	Pierre	Presenter	Yes
Canada Border Services Agency	Figueredo	Christian	Presenter	Yes
Shared Services Canada	Fortin	Mathieu	Observer	Yes
Shared Services Canada	Gagnon	Luc	Co-Chair	Yes
Treasury Board of Canada Secretariat	Gibault	Lynn	Member	No
Canada School of Public Service	Gorrie	John	Presenter	Yes
Canada Border Services Agency	Gray	Myers	Observer	Yes

Department	Last Name	First Name	Role	Attended
Department of Employment and Social Development	Heffernan	James	Presenter	Yes
Canada Border Services Agency	Hu	Jasmin	Other	Yes
Employment and Social Development Canada	Jubainville	Marc	Observer	Yes
Shared Services Canada	Kealey	Sean	Member	No
Public Services and Procurement Canada	Labelle	Tammy	Member	No
Public Service and Procurement Canada	Lagace	Robert	Member	No
Department of Employment and Social Development	Leprohon	Mathieu	Alternate	Yes
Treasury Board of Canada Secretariat	Levec	Scott	Presenter	Yes
Shared Services Canada	Licandro	Domenico	Presenter	Yes
Department of Employment and Social Development	Long	Benoit	Member	No
Canada Border Services Agency	MacDonald	Cameron	Other	Yes
Shared Services Canada	MacPhail	Robert	Presenter	Yes
Department of National Defence	Martel	Sophie	Member	No
Treasury Board of Canada Secretariat	McGee	Natalie	Member	Yes
Statistics Canada	McLellan	Robert	Member	Yes
Department of Employment and Social Development	Milne	Trevor	Presenter	Yes
Shared Services Canada	Mohan	Dinesh	Observer	Yes
Communications Security Establishment	Mullen	Michele	Member	No
Department of Canadian Heritage	Murray	William	Member	No
Privy Council Office	Nair	Sreejit	Member	No
Canada Revenue Agency	Nicastro	Giovanni	Alternate	Yes
Shared Services Canada	Peladeau	Marc	Member	No
Royal Canadian Mounted Police	Penney	Mark	Member	Yes
Public Service and Procurement Canada	Porebski	Suzanna	Member	No
Treasury Board of Canada Secretariat	Pushelberg	Floyd	Ex-Officio	Yes
Public Service Commission	Rhodenizer	Elizabeth	Member	Yes
Shared Services Canada	Roy-Richard	Mael	Observer	Yes
Infrastructure Canada	Shields	Joann	Member	No
Department of Employment and Social Development	Skinner	Denis	Observer	Yes

UNCLASSIFIED / NON CLASSIFIÉ

Department	Last Name	First Name	Role	Attended
Immigration, Refugees and Citizenship Canada	Sovani	Zaina	Member	No
Shared Services Canada	Stocco	Tom	Presenter	Yes
Statistics Canada	St-Yves	Martin	Member	No
National Research Council of Canada	Wagner	Paul	Member	No

Unclassified



Treasury Board of Canada  
Secrétariat

Secrétariat du Conseil du Trésor  
du Canada

Canada

# Government of Canada Enterprise Architecture Review Board (GC EARB)

## Immigration, Refugees and Citizenship Canada (IRCC) - Immigration and Citizenship Consultants Follow-up to GC EARB on March 2<sup>nd</sup>, 2020 (Condition #1 for the Administrative Penalties System)

### Presentation for:

- ☒ Endorsement
- ☐ Information
- ☐ Exemption

### EARB Appearance:

- ☐ Initial
- ☒ Follow-up
- ☐ Final Architecture

### Contact Information:

#### Presenter(s):

- (IRCC) Omar Subhani [Omar.Subhani@cic.gc.ca](mailto:Omar.Subhani@cic.gc.ca)

Last Updated December, 2020

GC Docs 384494621

PowerPoint Slide Show - GC EARB - IRCC - Immigration and Citizenship Consultants AP System Options Analysis (Condition #1) (1).pptx - PowerPoint

Unclassified

# Presentation Purpose

IRCC is returning to GC EARB following the initial presentation on March 2<sup>nd</sup>, 2020, in order to respond to condition one (1), namely to present further options analysis for the Administrative Penalties (AP) system prior to finalizing solution design.

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Slide 2 of 17

Display Settings

## Overview of Previous GC EARB Presentation

### Recap:

- IRCC presented to GC EARB on March 2<sup>nd</sup>, 2020, seeking endorsement to proceed with Information Technology (IT) enhancements to efficiently detect, analyze, track, and process administrative investigations of consultants or other representatives suspected of misrepresentations or non-compliance with the *Immigration and Refugee Protection Act* (IRPA) and *Citizenship Act*.
- Following IRCC's presentation, the Board granted a secretarial endorsement with three condition to be addressed by IRCC (condition #1 being the focus of this presentation):

- 1) IRCC to come back to GC EARB with further options analysis for Administrative Penalties system in late 2020, prior to finalizing design;**
- 2) IRCC to come back to GC EARB with Link Analysis Software requirements before the RFP is launched, and give considerations for AI options;
- 3) IRCC to come back to GC EARB and other relevant committees to present the roadmap for GCMS replacement going forward in fiscal 20-21;
- 4) IRCC to consult with the CCCS in regards to the above conditions, in order to confirm that ITSG-33 is being applied appropriately to those activities.

Unclassified

# Background

IRCC is required to strengthen compliance and enforcement in regards to immigration and citizenship consultants, [REDACTED]

Incidents of fraud and wrongdoing have risen in recent years. Currently, IRCC receives approximately 1000 investigation referrals annually and actively pursues approximately 200 investigations given the number of resources dedicated to them. These investigations can link to many applications, often thousands, for entry or status in Canada. As a result, IRCC's investigation unit is unable to keep up with the volumes to effectively detect, investigate, track, and manage cases.

Enhancements to IT tools will support compliance efforts and allow officers across IRCC to make informed decisions when assessing applications for status in Canada as well as assist in the disruption of fraud networks by transforming the current manual, labor-intensive and unsystematic processes used to manage investigations.

As the Department undertakes its Transformation agenda, new capabilities such as those described in this project need to balance near term needs with the future. The proposed architecture:

- Leverages and reuses existing solutions within the Department;
- Prioritizes data integrity (applicants, immigration consultants and 3rd parties).

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# Actions Completed

**Action Complete:** Initial presentation to GC EARB in March

- IRCC held Solution Architecture Working Groups, which involved internal subject matter experts who looked at different IT solutions in relation to business and technical requirements.
- GCMS platform, which includes EDW (Cognos), was selected as the most practical solution due to its investigative and analytical features, ability to re-use existing AP functionality, and because leveraging existing solutions provides the least technical risk to deliver AP in a timely manner.

**Action Complete:** IRCC's response to GC EARB condition #1

- IRCC held GC EARB Working Groups (GC EARB WG) and other ad hoc meetings in order to complete further analysis of the most viable IT solutions for the AP system: GCMS, GCcase, SaaS (Protected B), and Custom/Open Source on Public Cloud (PBMM).
- GC EARB WG reviewed the proposed solutions in relation to business and technical requirements and considered pros and cons for each (outlined in subsequent slides).

**Action Complete:** ITSG-33 consultation

- IRCC held ITSG-33 consultation meeting involving Project Branch, IT Security, IT Operations, EDW and CCCS-SA, and will continue further consultations as needed.
- IRCC confirmed that it is applying ITSG-33 through an internal process based on IT Security Risk Management Framework and SA&A Directive.



# Administrative Penalties – High-Level Requirements

The AP solution will provide functionality for IRCC to issue administrative penalties to those who violate IRPA and the *Citizenship Act* when providing immigration or citizenship advice or representation to IRCC clients.

## High-level requirements:

- Ability to determine and record a penalty score and related information where applicable;
- Ability to apply a penalty or consequence against the alleged offender(s);
- Ability to record a final penalty decision;
- Ability to record that, following administration of a penalty, a complaint was sent to a regulator or professional body;
- Ability to record requests for review brought to the Governor in Council (GIC) Appointee and related details;
- Ability to record incoming correspondence;
- Ability to record and attach relevant evidence and documents including large amounts of GCMS data.

Unclassified

# Option 1: GCMS

Original proposal in March 2020: Manage investigations and APs in GCMS

- ✓ Leverages and reuses existing GCMS functionality
  - AP for Temporary Foreign Worker Program (TFWP) implemented in GCMS
  - Data sets for immigration and citizenship applicants already in GCMS
- ✓ Prioritizes data integrity (master record for applicants, 3<sup>rd</sup> parties, immigration consultants)
- ✓ Resource expertise in-house (IT-OPS)
- ✓ DPM - Stabilizing and standardizing (Siebel)
  - Siebel UI, SOAP, REST hosted in application containers (Tomcat)
  - Zero downtime for deployments and configuration changes
  - Browser centric development tools
  - Target upgrade post EDC go-live
  - Limited impact on GCMS Technical debts
- ✗ Does not align with TBS directive of Cloud first
  - Migrating to the EDC
  - The EDC project has the highest priority in IRCC (Target Sept 2021)

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## Option 2: GCcase

### GoC standard for case management

- GCcase platform is MS Dynamics hosted by PSPC/SSC at the EDC (EDC data center)
  - Plans underway to migrate to cloud (IaaS) to meet client demand in MS Azure cloud
- ✓ GCcase is TBS supported
- ✓ IRCC has implemented CORE, LCMS and PPERTS and IRB has deployed IRIS in GCcase
- ✓ Avoid potential Technical Debt with GCMS
- ✓ GCcase Marketplace available to reuse common assets
- ✗ Lack of experience in-house (IT-OPS) with MS Dynamics dev
  - IRCC MS Dynamics team is 3 people
  - Still a learning process for the team
- ✗ GCcase onboarding may impact timelines
  - Implementing GCcase is a partnership with PSPC who have some say in timelines and deliverables
    - GCcase conducts impact assessment to review and estimate timelines
- ✗ User experience
  - Investigative analyst will need to access 2 different systems (GCMS and GCcase)
- ✗ Movement of data between systems
  - Client data will be moved back and forth between GCMS and GCcase

## Option 3: Software as a Service (SaaS)

Implement AP via a Protected B SaaS COTS product

- MS Dynamics 365 Online, Salesforce, ServiceNow are all available as a Protected B SaaS (cloud-broker.canada.ca)

- ✓ Cloud first (SaaS)
- ✓ Limits potential Technical Debt with GCMS
- ✗ Costs may be higher
  - GCcase which is MS Dynamics is cheaper on the private cloud than the SaaS (MS Dynamics 365)
- ✗ Not cloud vendor agnostic
- ✗ No in-house dev expertise with the above vendors
  - Learning curve may impact dev timelines
  - Dependency on obtaining resources
- ✗ Additional requirements for SaaS
  - Supply Chain Integrity and Cloud Service Provider Information Technology Security (ITS) Assessment
- ✗ Investigation + AP specific SaaS will require getting Protected B clearance
- ✗ Movement of data between systems
  - Client data will be moved back and forth between GCMS and Cloud

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## Option 4: Custom/Open Source on Cloud Platform (PaaS)

Implement custom or open source case management solution in a Cloud PBMM (PaaS)

- ✓ IRCC has deployed to the AWS PBMM (TR eApps pilot in prod)
- ✓ Aligns with TBS Digital Directives
  - Cloud first (PaaS), Cloud vendor agnostic
- ✓ Limits potential Technical Debt with GCMS
- ✗ Custom build will have the highest level of dev and longest timelines
  - Build from scratch (table structures, UI, user functionality, multi-lang)
    - Admin, user access, security available from cloud platform services
    - Additional time and effort for Training manuals
  - Complexity, time, effort may be reduced by implementing open source system
    - Limited tech support, bug fixes with open source

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# Implementing AP in GCMS vs GCcase Comparison

## Case Management (Collection of details, notes, activities)

- ✓ **GCMS:** Clone existing entity based on existing TFWP AP functionality (with new search specs)
  - **GCcase:** Customize Incident object

## Data

- ✓ **GCMS:** GCMS is the master data of immigration consultants, applications, investigations
  - **GCcase:** New interfaces to GCMS to pull data into GCcase
    - GCMS Integration work still required with any interface
      - Technical debt will increase at the integration layer if implemented prior to Digital Platform Modernization (DPM)
    - Even with data migration, updates in master will need to be sent to GCcase
    - There is a low volume of cases so building a separate solution may not be a good investment

## Correspondence Generation

- ✓ **GCMS:** Utilize existing correspondence functionality, only add new templates
  - **GCcase:** New development (integration to Outlook, templates)
    - Integration hooks to Outlook may already exist from GCcase Marketplace

## Integration to GCDocs

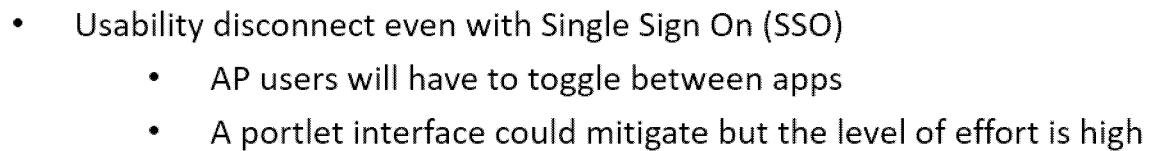
- ✓ **GCMS:** Existing
  - **GCcase:** New development to invoke GCDocs end points

## Integration to EDW

- ✓ **GCMS:** Updates to existing ETL
  - **GCcase:** New ETL from GCcase schema to EDW

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- APs are a sub-process of an Investigation
  - AP users will revisit investigative data during the process



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## Recap in support of option #1

- GCcase would be viable but would still require GCMS integration, hence leveraging existing TFWP AP functionality will minimize changes in GCMS.
- An external solution would require movement of client data between the parent system (Investigations Management in GCMS) and another system (e.g., AP in GCcase) and then back into GCMS once the AP decision is rendered.
- There is a low volume of cases, hence building a separate solution may not be a good investment.
- Building a separate system for APs would increase the project costs and may have an impact on deployment timelines.
- As IRCC works on DPM to ensure access to the right digital tools and a digital platform that is nimble, modern and efficient, the external solution for AP would likely be throw away.

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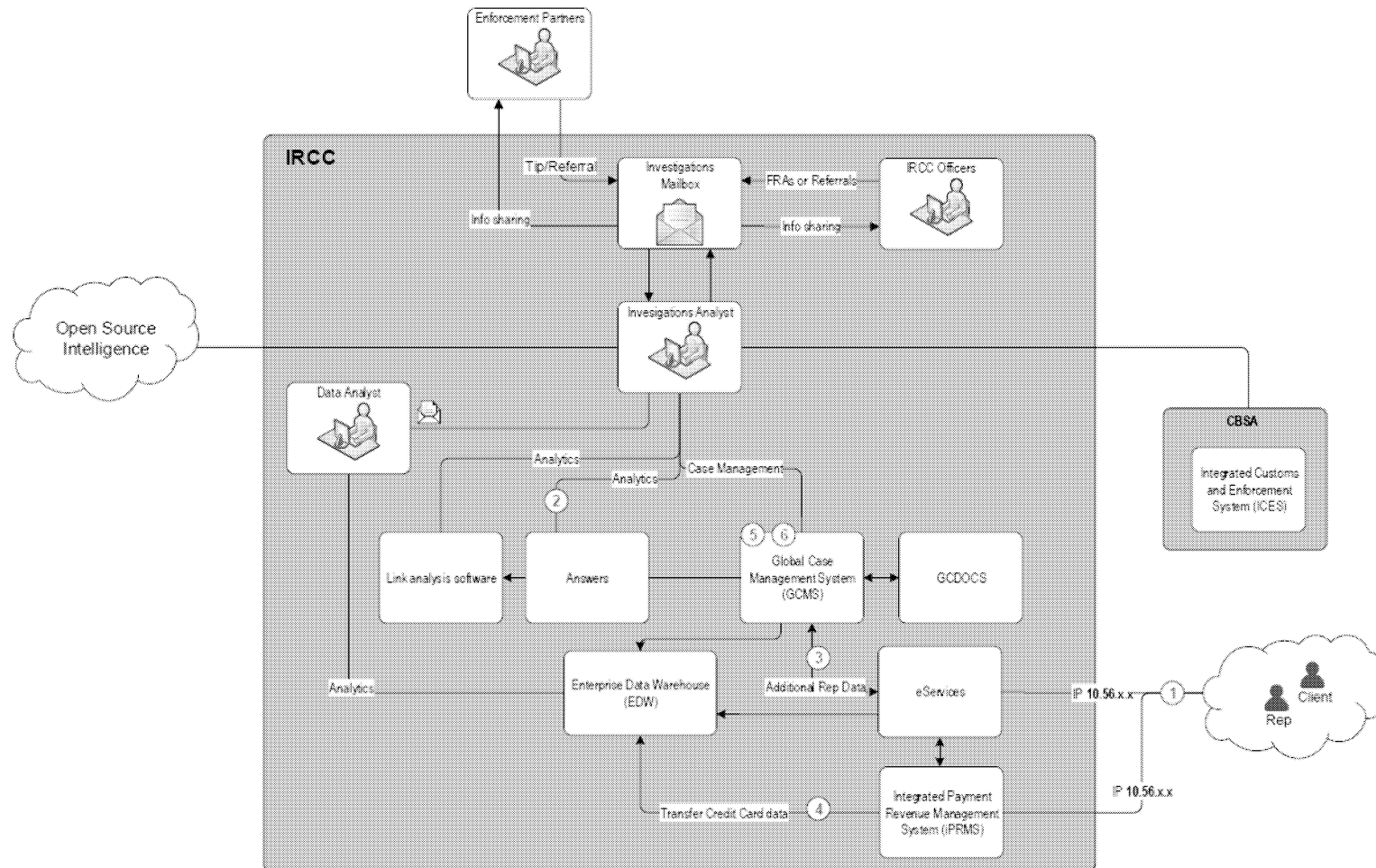
## Dependencies & Mitigation – Option #1

- The proposed change to GCMS are dependant on the Siebel upgrade and the modernization of the integration layer part of the DPM technical Debt Reduction portfolio.
- IRCC project team and EA team will monitor closely for anything that may impact GCMS stability
- The Immigration and Citizenship Consultant initiative will align the project schedule to TDR DPM changes dependent on the delivery of the project.
- The project team will remain engaged with the DPM team to ensure any change in direction or in timeline.

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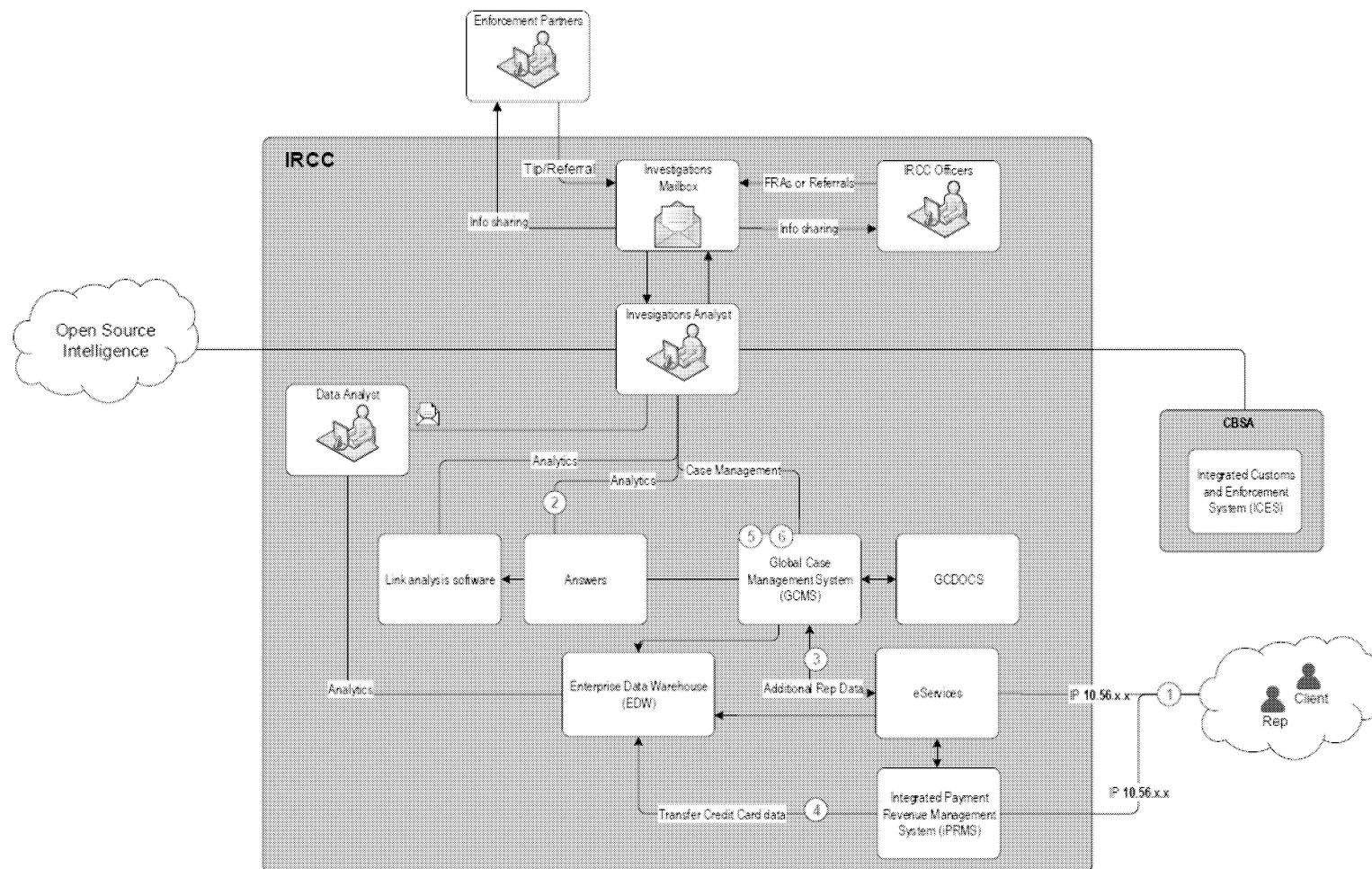
# Proposed GCMS AP Architecture - **DIAGRAM**



1.5

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# Proposed GCMS AP Architecture - **DIAGRAM**



1.5

Unclassified

## Proposed GCMS AP Architecture – System Changes

1. Capture the IP address at various points of online interaction between the applicants or representatives with the department (i.e. online applications, payments, portal enrolments, etc.)
2. Ability to conduct keyword searches of free text fields:
  - With some modifications to EDW schema exported for Investigations Data Analysts, unstructured textual data can be 'mined' using IRCC analytic tools
3. Additional fields in GCMS to collect information on representatives:
  - Additional data attributes can be added to eServices and GCMS applications as needed and be added to EDW extracts of GCMS data for analytical inputs.
4. Self-serve solution to retrieve payment information:
  - Data captured through IPRMS service can be added to the EDW eService extracts, which in turn can be 'linked' to application and client-centric data.
5. Investigations created in GCMS
  - Details captured, relevant documents attached
  - Correspondence generation

### **Inventory of system changes:**

6. AP created in GCMS for the tracking of activities related to administrative penalties.
  - Issue Procedural Fairness Letter outlining penalties
  - Generate reports

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## Next Steps

- Obtain endorsement from GC EARB to implement AP using the recommended option #1.
- Develop detailed requirements for AP and coordinate with IRCC IT Ops for the design, development and implementation.
- Continue working with TBS and CCCS to ensure alignment with other GC initiatives and IT security risk management requirements.

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**GC Enterprise Architecture Review Board (EARB)****Record of Discussion****December 17, 2020, 9:00 a.m. to 10:30 a.m.****Via Microsoft Teams****Item 1: Opening Remarks from the Co-Chairs**

Paul Wagner (TBS)

Raj Thuppal (SSC)

Co-chairs Paul Wagner, Treasury Board Secretariat (TBS) and Raj Thuppal, Shared Services Canada (SSC) welcomed members.

The Record of Discussion (RoD) for the meetings of September 10, 2020, October 8, 2020 and December 3, 2020 were endorsed. Jody Lobb (TBS) requested more time to review the July 30, 2020 RoD, therefore it will return to a future meeting for GC EARB member approval.

**Item 2: Statistics Canada (STATS) – Analytics Diversification**

Robert McLellan (STATS)

Ian Bale (STATS)

Sarah MacKinnon (STATS)

The purpose of this presentation was to seek GC EARB endorsement of the Analytics Diversification architecture at Statistics Canada.

**Feedback**

- No comments or concerns were raised.

**Endorsement: Endorsed****Item 3: Communications Security Establishment (CSE) – NextGen Human Resource (HR) and Pay for Heightened Security Documents**

(CSE)

(CSE)

(CSE)

The purpose of this presentation was to update GC EARB on the overall progress of the CSE NextGen HR and Pay pilot project and seek endorsement of the architecture.

**Feedback**

- [REDACTED] offers [REDACTED] within the solution, and [REDACTED] will [REDACTED] upon request by CSE until a [REDACTED] solution is in place. ([REDACTED])
- CSE is implementing [REDACTED] in the interim architecture.
- CSE will collaborate and share their experiences with other departments, including NextGen HR and Pay project.
- CSE will not run both systems in parallel for the duration of the pilot. A phased-in approach will be taken with full migration intention by the end of the pilot.
- OCHRO positioned the endorsement of the CSE pilot proposal, based on the following conditions:

- Procurement aligns to NextGen:
  - CSE has collaborated with PSPC on the procurement and issued [REDACTED] NextGen contract, which resulted in [REDACTED] being the vendor capable of meeting HSO security requirements.
- Functional scope aligns to NextGen:
  - CSE is working with [REDACTED] to build out a full data dictionary to collaborate with the NextGen HR and Pay initiative.
  - Project timelines/schedule consider timelines for GC NextGen and Pay
- Project governance is established and will align to whatever transcending HR/Pay/Pension governance is put into place:
  - Internal project governance has been implemented. CSE is committed to providing updates as required to other GC boards/committees as required.
- HSO's form a cluster to collaborate on the development of the HSO instance in order to advance the GC agenda to reduce HR solutions:
  - HSO Community of Practice has been established to share information on various topics including our NextGen journey. Three meetings have taken place.
  - Regular meetings have been scheduled with CSIS, FINTRAC, RCMP and DND.

**Endorsement: Endorsed (OCHRO conditions, as stated above, have been met)**

#### **Item 4: Shared Services Canada (SSC) – Government of Canada Secret Infrastructure (GCSI) Expansion Project**

Greg Hills (SSC)

The purpose of this presentation was to seek GC EARB endorsement on the target architecture of the GCSI Expansion Project and to provide information on the projected service offerings.

#### **Feedback**

- SSC is working with the Department of National Defence (DND) to review cloud options such as the usage of a Cloud Service Provider (CSP). At this time Cloud isn't within scope of the GCSI timeframes. Secret cloud options analysis will be part of the longer-term GCSI roadmap.
- The high-level plan is to implement secure remote access within 12-18 months following approval of funding. The Cyber Centre will be engaged to when establishing the timeframe.

**Endorsement: Endorsed pending successful resolution of Action noted below**

**Action: SSC & TBS Enterprise Architecture (EA) team to ensure compliance [REDACTED]**

**Lead: Dan Cooper (TBS), Greg Hills (SSC)**

#### **Item 5: Shared Services Canada (SSC) – Government of Canada Smart Phone for Classified (SPfC) Project**

Greg Hills (SSC)

The purpose of this presentation was to seek GC EARB endorsement of the target architecture of the Smart Phone for Classified (SPfC) Project [REDACTED] and provide information on the projected service offerings. The SPfC Project will deliver the GCSI Mobile Phone Service Offering (MPSO) which will be an integrated component of the GCSI classified portfolio.

**Feedback**

- No comments or concerns were raised.

**Endorsement: Endorsed pending successful resolution of Action noted below**

**Action:** SSC & TBS Enterprise Architecture (EA) team to ensure compliance [REDACTED]

**Lead:** Dan Cooper (TBS), Greg Hills (SSC)

**Item 6: Consent Agenda Items**

*Items are not presented; however, members were welcome to ask questions or provide feedback.*

**Item 6a: Immigration and Citizenship Canada (IRCC) – Immigration and Citizen Consultants – Conditions Response**

The purpose of this document is to satisfy Condition #1 which resulted from IRCC's presentation to GC EARB on March 2, 2020.

**Condition #1:**

IRCC to come back to GC EARB with further options analysis for Administrative Penalties (AP) system in late 2020, prior to finalizing design.

**IRCC's Response to Condition #1:**

- IRCC held GC EARB Working Groups (GC EARB WG) and other ad hoc meetings in order to complete further analysis of the most viable IT solutions for the AP system: Global Case Management System (GCMS), GCcase, Software as a Service (SaaS) (Protected B), and Custom/Open Source on Public Cloud (PBMM).
- GC EARB WG reviewed the proposed solutions in relation to business and technical requirements and considered pros and cons for each.

**Feedback**

- No comments or concerns were raised.

**Endorsement: Endorsed**

**Item 6b: Treasury Board Secretariat (TBS) – Windows 7 / Windows Server 2008 Exceptions**

The purpose of this document was to seek GC EARB endorsement for Exceptions to the Windows 10 and Windows Server 2008 IT Policy Implementation Notices (ITPIN).

**Feedback**

- No comments or concerns were raised.
- DND exception numbers were not included in the original deck but were stated during the presentation.

**Endorsement: Endorsed**

**Item 7: Closing Remarks**



Paul Wagner (TBS)  
Raj Thuppal (SSC)

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The co-chairs thanked members for attending the meeting.

The next meeting will be on January 14, 2021.

## Final Attendance

Department	Last Name	First Name	Role	Attended
Agriculture and Agri-Food Canada	Clark	Dale	Observer	Yes
Canada Border Services Agency	Doan	Minh	Member	No
Canada Post	Khan	Shahab	Observer	Yes
Canada Revenue Agency	Belair	Tiffany	Member	No
Canada Revenue Agency	Droeske	Ron	Alternate	Yes
Canada Revenue Agency	Lalonde	Joel R.	Observer	Yes
Canada Revenue Agency	Sharma	Sanchit	Observer	Yes
Canada Revenue Agency	Wan	Laura	Observer	Yes
Canadian Heritage	Murray	William	Member	Yes
Canadian Institutes of Health Research	Dan	Chow	Observer	Yes
Communications Security Establishment				
Communications Security Establishment				
Communications Security Establishment	Mullen	Michele	Member	No
Communications Security Establishment				
Employment and Social Development Canada	Bisaillon	Eric	Observer	Yes
Employment and Social Development Canada	Long	Benoit	Member	No
Employment and Social Development Canada	Au	Lily Hoi Shan	Observer	Yes
Employment and Social Development Canada	Bourji	Rona	Observer	Yes
Employment and Social Development Canada	Brazeau	Martine-Christine	Observer	Yes
Employment and Social Development Canada	Carnegie	Kenneth	Observer	Yes
Employment and Social Development Canada	Chilangwa	Bwalya	Observer	Yes
Employment and Social Development Canada	Faucher	Christiane	Observer	Yes
Employment and Social Development Canada	Ferreira	Victor	Observer	Yes
Employment and Social Development Canada	Frigo	Dino D.	Observer	Yes
Employment and Social Development Canada	Garg	Dipti	Observer	Yes
Employment and Social Development Canada	Hajjar	Rabih	Observer	Yes
Employment and Social Development Canada	Hamilton	Gregg	Observer	Yes
Employment and Social Development Canada	Khan	Afia	Observer	Yes
Employment and Social Development Canada	Kriz	Jana	Observer	Yes
Employment and Social Development Canada	Lahyane	Abdelkader	Observer	Yes
Employment and Social Development Canada	Lapierre	Jean	Observer	Yes
Employment and Social Development Canada	Lasalle	Shelley	Observer	Yes
Employment and Social Development Canada	Lau	Cho	Observer	Yes
Employment and Social Development Canada	Li	Chi (Jimmy)	Observer	Yes
Employment and Social Development Canada	Lipskie	Robert	Observer	Yes
Employment and Social Development Canada	Londynski	E. Damian	Observer	Yes
Employment and Social Development Canada	Newton	Steve	Observer	Yes
Employment and Social Development Canada	Prevost			
Employment and Social Development Canada	Sommers	Claudette	Observer	Yes
Employment and Social Development Canada	Reader	Sven	Observer	Yes
Employment and Social Development Canada	Richard	Daniel D.	Observer	Yes
Employment and Social Development Canada	Rowlinson	Erin	Observer	Yes

Employment and Social Development Canada	Seaibi	Ghada	Observer	Yes
Employment and Social Development Canada	Sintu	Alexandru	Observer	Yes
Employment and Social Development Canada	Talgoy	Erik	Observer	Yes
Employment and Social Development Canada	Tsanov	Nikolay	Observer	Yes
Employment and Social Development Canada	Tupitsyn	Oleg	Observer	Yes
Employment and Social Development Canada	Womadjie	Gertrude	Observer	Yes
Employment and Social Development Canada	Yassine	Zein	Observer	Yes
Environment and Climate Change Canada	Byrne	Kerri	Observer	Yes
Finance Canada	Moore	Ian	Observer	Yes
Fisheries and Oceans Canada	Bernier	Guy	Observer	Yes
Fisheries and Oceans Canada	Carter	David Andrew	Observer	Yes
Fisheries and Oceans Canada	Comeau	Darrell	Observer	Yes
Fisheries and Oceans Canada	Côté	Marc	Observer	Yes
Fisheries and Oceans Canada	Essoltani	Abdelaziz	Observer	Yes
Fisheries and Oceans Canada	Lalonde	Dominique	Observer	Yes
Fisheries and Oceans Canada	Manu	Nana	Observer	Yes
Fisheries and Oceans Canada	Ndagijimana	Fulgence	Observer	Yes
Global Affairs Canada	Casey	Kristina	Member	Yes
Health Canada	McKenna	Scott	Presenter	Yes
Health Canada	MacKinnon	Chad	Observer	Yes
Health Canada	Pollock	Robert	Observer	Yes
Immigration, Refugees and Citizenship Canada	Moran	Glenn	Replacement	Yes
Immigration, Refugees and Citizenship Canada	Sovani	Zaina	Member	No
Immigration, Refugees and Citizenship Canada	Larouche	Yanick	Observer	Yes
Immigration, Refugees and Citizenship Canada	Liu	Peng	Observer	Yes
Immigration, Refugees and Citizenship Canada	Riel	Shawn	Observer	Yes
Infrastructure Canada	Shields	Joann	Member	Yes
Infrastructure Canada	Ben Hassen	Jounaidi	Observer	Yes
Innovation, Science and Economic Development Canada	Moffat	Chris	Observer	Yes
Library and Archives of Canada	Bouvier	Dominique	Member	No
Library and Archives of Canada	Charbonneau	Normand	Member	Yes
Library and Archives of Canada	El-hajj	Abir	Observer	Yes
Library and Archives of Canada	Iza	Stephane	Observer	Yes
Library and Archives of Canada	Pageot	Simon	Observer	Yes
Library and Archives of Canada	Price	Dara	Observer	Yes
National Defence	Blais Parent	Gilbert	Replacement	Yes
National Defence	Cavazzoni	Christiana	Member	No
National Defence	Martel	Sophie	Member	No
National Research Council of Canada	Cooke	Paul	Member	No
Natural Resources Canada	Reid	Jason	Observer	Yes
Privy Council Office	Awada	Rana	Alternate	Yes
Privy Council Office	Nair	Sreejit	Member	No
Public Safety Canada	Cameron	Caroline	Observer	Yes

Public Service Commission	Rhodenizer	Elizabeth	Member	Yes
Public Service Commission	Thu-Thon	Nancy	Observer	Yes
Public Services and Procurement Canada	Lagace	Robert	Member	No
Public Services and Procurement Canada	Porebski	Suzanna	Member	Yes
Public Services and Procurement Canada	Labelle	Pascal	Observer	Yes
Public Services and Procurement Canada	Lafleche	Roger	Observer	Yes
Public Services and Procurement Canada	Guevremont	Stephane	Member	No
Public Services and Procurement Canada	Horne	Nicolas	Ex-Officio	Yes
Public Services and Procurement Canada	Komal	Surinder	Ex-Officio	Yes
Public Services and Procurement Canada	Wood	Walter	Observer	Yes
Public Services and Procurement Canada	Coulombe	Sylvain	Observer	Yes
Public Services and Procurement Canada	Musgrove	Steven	Observer	Yes
Royal Canadian Mounted Police (Civilian Staff)	Daoust	Christian	Member	No
Shared Services Canada	Beshir	Noha	Observer	Yes
Shared Services Canada	Bommaganti	Sirisha	Observer	Yes
Shared Services Canada	Dragnea	Raluca	Presenter	Yes
Shared Services Canada	Hills	Gregory	Presenter	Yes
Shared Services Canada	Kealey	Sean	Member	No
Shared Services Canada	Lachance	Jean-Pierre	Presenter	Yes
Shared Services Canada	Manchevsky	Jacque	Member	No
Shared Services Canada	Mohan	Dinesh	Ex-Officio	Yes
Shared Services Canada	Peladeau	Marc	Observer	Yes
Shared Services Canada	Rawat	Vipul	Presenter	Yes
Shared Services Canada	Thuppal	Raj	Co-Chair	Yes
Shared Services Canada	Tripp	Roxanne	Observer	Yes
Shared Services Canada	Ulitsky	Victor	Member	Yes
Shared Services Canada	Vukovojac	Damir	Observer	Yes
Shared Services Canada	Ali	Tarek	Observer	Yes
Shared Services Canada	Bassett	Caroline	Observer	Yes
Shared Services Canada	Chaaban	Afif	Observer	Yes
Shared Services Canada	Gomes	Denise	Observer	Yes
Shared Services Canada	Hendriks	Paul	Observer	Yes
Shared Services Canada	Houssari	Tarek	Observer	Yes
Shared Services Canada	Jean-Baptiste	Johanne	Observer	Yes
Shared Services Canada	McLaughlin	Daniel	Observer	Yes
Shared Services Canada	Niktash	Morteza	Observer	Yes
Statistics Canada	Bale	Ian	Presenter	Yes
Statistics Canada	Godin	Janique	Observer	Yes
Statistics Canada	MacKinnon	Sarah	Presenter	Yes
Statistics Canada	McLellan	Robert	Member	Yes
Statistics Canada	St-Yves	Martin	Member	No
Statistics Canada	Boivin	Jean-Francois	Observer	Yes
Treasury Board of Canada Secretariat	Andrecheck	Philippe	Observer	Yes
Treasury Board of Canada Secretariat	Bacon	Yves	Member	Yes

Treasury Board of Canada Secretariat	Begley	Fred	Member	No
Treasury Board of Canada Secretariat	Burke	Allison	Observer	Yes
Treasury Board of Canada Secretariat	Cooper	Dan	Ex-Officio	Yes
Treasury Board of Canada Secretariat	Cornell	Andrew	Observer	Yes
Treasury Board of Canada Secretariat	Currah	John	Observer	Yes
Treasury Board of Canada Secretariat	Delorme	Valerie	Secretariat	Yes
Treasury Board of Canada Secretariat	Gann	Jennifer	Secretariat	Yes
Treasury Board of Canada Secretariat	Garlough	Jason	Presenter	Yes
Treasury Board of Canada Secretariat	Gibault	Lynn	Member	No
Treasury Board of Canada Secretariat	Headley	Lisa	Observer	Yes
Treasury Board of Canada Secretariat	Jean-Noel	Dominique	Observer	Yes
Treasury Board of Canada Secretariat	Kelome Azondekon	Victor	Observer	Yes
Treasury Board of Canada Secretariat	Lobb	Jody	Observer	Yes
Treasury Board of Canada Secretariat	McGee	Natalie	Member	No
Treasury Board of Canada Secretariat	McIntosh	Julie	Observer	Yes
Treasury Board of Canada Secretariat	Pushelberg	Floyd	Ex-Officio	Yes
Treasury Board of Canada Secretariat	Seeto	Valerie	Observer	Yes
Treasury Board of Canada Secretariat	Skinner	Denis	Observer	Yes
Treasury Board of Canada Secretariat	Smith-Chao	Shawn	Observer	Yes
Treasury Board of Canada Secretariat	Taylor	Michael	Observer	Yes
Treasury Board of Canada Secretariat	Tea-Duncan	Po	Observer	Yes
Treasury Board of Canada Secretariat	Trottier	Robert	Observer	Yes
Treasury Board of Canada Secretariat	Wagner	Paul	Co-Chair	Yes
Treasury Board of Canada Secretariat	Cherian	Jovita	Observer	Yes
Treasury Board of Canada Secretariat	Dzeko	Katarina	Observer	Yes
Treasury Board of Canada Secretariat	Gelso	Pablo	Observer	Yes
Treasury Board of Canada Secretariat	Heaton	Jordana	Observer	Yes
Treasury Board of Canada Secretariat	Kunath	Victoria	Observer	Yes
Treasury Board of Canada Secretariat	Kuyee	Tenzing	Observer	Yes
Treasury Board of Canada Secretariat	Leask	Wendy	Observer	Yes
Treasury Board of Canada Secretariat	Levac	Scott	Observer	Yes
Treasury Board of Canada Secretariat	Little	Patrick	Observer	Yes
Treasury Board of Canada Secretariat	MacLean	Colin	Observer	Yes
Treasury Board of Canada Secretariat	McIntosh	Jayson	Observer	Yes
Treasury Board of Canada Secretariat	Pelchat	Marco	Observer	Yes
Treasury Board of Canada Secretariat	Polanska	Katarzyna	Observer	Yes
Treasury Board of Canada Secretariat	Roberge	Nancy	Observer	Yes
Treasury Board of Canada Secretariat	Robillard	Etienne	Observer	Yes
Treasury Board of Canada Secretariat	Schonning	Nick	Observer	Yes

## **GC Enterprise Architecture Review Board (EARB)**

### **Record of Discussion**

**August 13, 2020, 9:00 a.m. to 10:00 a.m.**

**Via MS Teams**

#### **Item 1: Opening Remarks from the Co-Chairs**

Paul Wagner (TBS)

Raj Thuppal (SSC)

Co-chairs Paul Wagner (TBS) and Raj Thuppal (SSC) welcomed members.

#### **Item 2: Pay Rules Data Solution**

Fred Begley (TBS)

Francois Brunet (TBS)

The purpose of this presentation was to provide GC EARB information on the business need for a Pay Rules Data Solution and how TBS would be leveraging different technology to meet the need. A demonstration of the solution was provided.

#### **Feedback**

- An inquiry was made with regards to where the databases and data lakes will be stored. It was noted that there aren't any data lakes and that the databases are stored on the cloud on Azure using the TBS tenant; all information stored on the cloud is unclassified.
- There was an inquiry on whether this data solution could be re-used in other areas. This architecture can be re-used, it can help with unstructured data.
- A concern was raised with regards to cloud portability. It was noted that the models are coupled to the vendor and cannot be moved. The Co-Chairs noted that vendor lock in is something that this committee needs to keep in mind moving forward.

#### **Endorsement: Endorsed**

#### **Item 3: Changes to the GC Cloud Guardrails Process**

Scott Levac (TBS)

Ari Rizvi (SSC)

The purpose of this presentation was to seek GC EARB endorsement for a new escalation process for guardrail drift including remediation actions for accounts that have drifted outside of the guardrails; and to endorse an update to the GC Public Cloud Roles & Responsibilities Document.

#### **Feedback**

- It was suggested that a pilot be carried out to ensure the escalation process works well and that there is a need to submit it to the Deputy Minister. The approach needs to be clarified regarding when the Deputy Minister will be brought in. Adjusting the language to acknowledge when a department begins to take corrective action would help clarify the process.
- A balance between the previous approach and this approach needs to be found. The previous approach was too light and this approach is too heavy handed.

- Some departments are not seeing the compliance reports. It was indicated that the First Violation notifications are sent to the account holder (designated users) for each account and that this list of users can be shared.
- With respect to remediation, clarification was sought on whether only complete resolution is acceptable or is a plan to resolve acceptable. It was noted that the severity of the violation will be the indicator of action and what is required.
- It was suggested that departments should be able to run the audit tool on their own in order to be more proactive, and the department can then catch the non-compliant items faster than once a month.
- There was agreement that there is a need for this approach, and that the number of days (of inaction, non-response, total disagreement) before going to Deputy should be extended from three to seven days. It was noted that the non-compliance to guardrails need on be resolved within the seven-day period, however the department must also commit to solving the issues within that seven-day period.
- Non-compliance must be reported and discussed at the Chief Information Officer Council (CIOC).

**Endorsement:** **Endorsed** with modification of changing three days to seven days before escalating to the Deputy.

**Action:** Change the three day to seven days before escalating to Deputy.

**Lead:** Scott Levac, TBS

**Action:** Non-compliance reports to be presented and discussed at CIOC.

**Lead:** OCIO Committee Secretariat

#### **Item 4: Closing Remarks**

Paul Wagner (TBS)

Raj Thuppal (SSC)

Co-chairs Paul Wagner (TBS) and Raj Thuppal (SSC) thanked members for attending.

The next meeting will be August 27, 2020.

## Final Attendance

Department	Last Name	First Name	Role	Attended
Canada Border Services Agency	Doan	Minh	Member	Yes
Canada Border Services Agency	Leonard	Marc	Observer	Yes
Canada Revenue Agency	Belair	Tiffany	Ex-officio	No
Canada Revenue Agency	Droeske	Ron	Alternate	No
Canada Revenue Agency	Malouf	Jacqueline	Alternate	No
Canadian Centre for Cyber Security	Moule	Tyler	Observer	Yes
Communications Security Establishment				
Communications Security Establishment	Mullen	Michele	Member	No
Communications Security Establishment	Rizvi	Ari	Presenter	Yes
Correctional Service Canada	Quesnel	Louise-Philippe	Observer	Yes
Department of Agriculture and Agri-Food	Obst	Daniel	Observer	Yes
Department of Canadian Heritage	Murray	William	Member	No
Department of Employment and Social Development	Bourji	Rona	Observer	Yes
Department of Employment and Social Development	Castilla	Christine	Observer	Yes
Department of Employment and Social Development	Davis	Steven	Observer	Yes
Department of Employment and Social Development	Garg	Dipti	Observer	Yes
Department of Employment and Social Development	Gascon	Simon	Observer	Yes
Department of Employment and Social Development	Gauvin	Maxime	Observer	Yes
Department of Employment and Social Development	Giguere	Luc	Observer	Yes
Department of Employment and Social Development	Koudoro	Souhourou Rodrigue	Observer	Yes
Department of Employment and Social Development	Lacroix	Michael M	Observer	Yes
Department of Employment and Social Development	Lefebvre	Josee	Observer	Yes
Department of Employment and Social Development	Leprohon	Mathieu	Alternate	No
Department of Employment and Social Development	Lipski	Robert	Observer	Yes
Department of Employment and Social Development	Littlefield	Peter	Ex-officio	No
Department of Employment and Social Development	Londynski	E. Damian	Observer	Yes
Department of Employment and Social Development	Long	Benoit	Member	No
Department of Employment and Social Development	Maadarani	Soumaya	Observer	Yes
Department of Employment and Social Development	Parent	Stephane	Observer	Yes
Department of Employment and Social Development	Shen	Daniel Shih-Ho	Observer	Yes



Department of Employment and Social Development	Talgoy	Erik	Observer	Yes
Department of Employment and Social Development	Tupitsyn	Oleg	Observer	Yes
Department of Employment and Social Development	Vedmani	Sharan	Observer	Yes
Department of Employment and Social Development	Wu	Eric	Observer	Yes
Department of Fisheries and Oceans	Bernier	Guy	Observer	Yes
Department of Fisheries and Oceans	Buzuloiu	Dan	Observer	Yes
Department of Fisheries and Oceans	Elattar	Kareim	Observer	Yes
Department of Fisheries and Oceans	Essoltani	Abdelaziz	Observer	Yes
Department of Fisheries and Oceans	Grodesky	Celeste	Observer	Yes
Department of Fisheries and Oceans	Tremblay	Julien	Observer	Yes
Department of Fisheries and Oceans	Wang	Sen	Observer	Yes
Department of Foreign Affairs, Trade and Development	Casey	Kristina	Member	Yes
Department of Health	McKenna	Scott	Presenter	Yes
Department of National Defence	Cavazzoni	Christiana	Member	No
Department of National Defence	Martel	Sophie	Member	Yes
Department of National Defence	Silverson	Krista	Observer	Yes
Environment and Climate Change Canada	Byrne	Kerri	Observer	Yes
Health Canada	MacKinnon	Chad	Observer	Yes
Immigration, Refugees & Citizenship Canada	Sovani	Zaina	Member	No
Immigration, Refugees & Citizenship Canada	Subhani	Omar	Alternate	Yes
Infrastructure Canada	Ben Hassen	Jounaidi	Observer	Yes
Infrastructure Canada	Drizhachenko	Marina	Observer	Yes
Infrastructure Canada	Shields	Joann	Member	Yes
Innovation, Science, & Economic Development Canada	Boulet	Daniel	Ex-officio	No
Library and Archives of Canada	Bourvier	Dominique	Member	No
Library and Archives of Canada	Charbonneau	Normand	Member	No
Library and Archives of Canada	Price	Dara	Observer	Yes
Natural Resources Canada	Adaimy	Dany	Observer	Yes
Natural Resources Canada	Saab	Abed	Observer	Yes
Natural Resources Canada	Wittkie	Joshua	Observer	Yes
Natural Sciences and Engineering Research Council of Canada	Chow	Dan	Observer	Yes
Natural Sciences and Engineering Research Council of Canada	Pinck	John	Observer	Yes
Privy Council Office	Awada	Rana	Alternate	No
Privy Council Office	MacDonald	Ken	Alternate	No
Privy Council Office	Nair	Sreejit	Member	No
Public Safety Canada	Cameron	Caroline	Observer	Yes
Public Service and Procurement Canada	Porebski	Suzanna	Member	No

Public Service Commission	Rhodenizer	Elizabeth	Member	Yes
Public Service Commission	Danis	Stephane	Observer	Yes
Public Service Commission	Sauve	Christian	Observer	Yes
Public Service Commission	Thu-Thon	Nancy	Observer	Yes
Public Services and Procurement Canada	Musgrove	Steven	Observer	Yes
Public Services and Procurement Canada	Niyonambaza	Audace	Observer	Yes
Public Services and Procurement Canada	Legace	Robert	Observer	Yes
Public Services and Procurement Canada	Wood	Walter	Observer	Yes
Public Services and Procurement Canada	Audi	Joe	Alternate	No
Public Services and Procurement Canada	Horne	Nicolas	Ex-officio	Yes
Public Services and Procurement Canada	Komal	Surinder	Ex-officio	No
Public Services and Procurement Canada	Labelle	Tammy	Member	No
Public Services and Procurement Canada	Penhale	John	Alternate	No
Royal Canadian Mounted Police	Penney	Mark	Member	No
Shared Services Canada	Bampton	Julie	Replacement	Yes
Shared Services Canada	Bigelow	Brian	Observer	Yes
Shared Services Canada	Bommaganti	Sirisha	Observer	Yes
Shared Services Canada	Canam	Ken	Ex-officio	No
Shared Services Canada	Canuel	Dominic	Observer	Yes
Shared Services Canada	Gomes	Denise	Observer	Yes
Shared Services Canada	Kealey	Sean	Member	No
Shared Services Canada	Leslie	Steven	Observer	Yes
Shared Services Canada	Manchevsky	Jacquie	Member	No
Shared Services Canada	Mohan	Dinesh	Ex-officio	Yes
Shared Services Canada	Niktash	Morteza	Observer	Yes
Shared Services Canada	Peladeau	Marc	Member	Yes
Shared Services Canada	Rehberg	Robin	Observer	Yes
Shared Services Canada	Thuppall	Raj	Co-chair	Yes
Shared Services Canada	Ulitky	Victor	Ex-officio	No
Shared Services Canada	Zhang	Shurong	Observer	Yes
Statistics Canada	McLellan	Robert	Member	No
Statistics Canada	St-Yves	Martin	Member	No
Treasury Board Secretariat	Akhtar	Maria	Observer	Yes
Treasury Board Secretariat	Allardyce	Tim	Ex-officio	No
Treasury Board Secretariat	Bacon	Yves	Member	No
Treasury Board Secretariat	Begley	Fred	Member	Yes
Treasury Board Secretariat	Bessette	Louise	Secretariat	Yes
Treasury Board Secretariat	Brouillard	Marc	Ex-officio	No
Treasury Board Secretariat	Brunet	Francois	Presenter	Yes
Treasury Board Secretariat	Cooper	Dan	Ex-officio	Yes
Treasury Board Secretariat	Currah	John	Observer	Yes
Treasury Board Secretariat	Delorme	Valerie	Secretariat	Yes
Treasury Board Secretariat	Gibault	Lynn	Member	No
Treasury Board Secretariat	Goodyear	Lori	Ex-officio	No

Treasury Board Secretariat	Kelome Azondekon	Victor	Observer	Yes
Treasury Board Secretariat	Lalonde	Natalie	Ex-officio	No
Treasury Board Secretariat	Lapratte	Mario	Observer	Yes
Treasury Board Secretariat	Leask	Wendy	Observer	Yes
Treasury Board Secretariat	Levac	Scott	Presenter	Yes
Treasury Board Secretariat	McGee	Natalie	Member	Yes
Treasury Board Secretariat	Nurlaila	Gita	Observer	Yes
Treasury Board Secretariat	O'Brien	John	Ex-officio	No
Treasury Board Secretariat	Ogborne	Jeff	Ex-officio	No
Treasury Board Secretariat	Page	Marcel	Observer	Yes
Treasury Board Secretariat	Pushelberg	Floyd	Ex-officio	Yes
Treasury Board Secretariat	Roberge	Nancy	Observer	Yes
Treasury Board Secretariat	Robert	Melanie	Ex-officio	No
Treasury Board Secretariat	Schofield	Jennifer	Ex-officio	No
Treasury Board Secretariat	Vilis	Derek	Observer	Yes
Treasury Board Secretariat	Wagner	Paul	Co-chair	Yes
Treasury Board Secretariat	Whittle	Rita	Ex-officio	No

**Pages 120 to / à 122  
are not relevant  
sont non pertinentes**

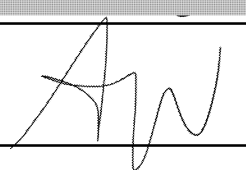
UNCLASSIFIED / NON CLASSIFIÉ

24062-19-488

TASK AUTHORIZATION		
<b>Contractor: GC Strategies</b>		<b>Contract Number: 24062-19-488</b>
<b>Task Number: 008</b>		<b>Date: June 6, 2020</b>
<b>Amendment Number:</b>		<b>Date:</b>
<p><b>Background:</b></p> <p>The Open Government Portals directorate requires the services of an A.6 Programmer/Software Developer Open Source for operational support activities on both the Atip Online Request System (AORS) and Open Government Portal (OGP).</p> <p>The scope of this contract will be Azure infrastructure support for:</p> <ul style="list-style-type: none"> <li>• AORS Artificial Intelligence modules</li> <li>• OGP Data Quality System</li> <li>• OGP Service Inventory</li> </ul> <p><b>Tasks:</b></p> <ul style="list-style-type: none"> <li>• Liaise with TBS employees to collect requirements.</li> <li>• Identify any Azure resources that may be required.</li> <li>• Develop stakeholder-approved architecture and backup routines in Azure cloud.</li> <li>• Work with Azure provider to ensure availability and security of solutions.</li> <li>• Work with TBS stakeholders to update system code when required.</li> <li>• Provide regular status reporting to managers and senior management.</li> </ul> <p><b>Deliverables:</b></p> <ul style="list-style-type: none"> <li>• Cloud-hosted solution for AORS AI components</li> <li>• Cloud-hosted solution for OGP Data Quality system</li> <li>• Cloud-hosted solution for OGP Service Inventory system</li> </ul> <p><b>Format of Deliverables:</b></p> <p>The Contractor may be required to provide deliverables in the following, but not limited to, the following formats:</p> <ul style="list-style-type: none"> <li>• Source code</li> <li>• Documentation in MS Word</li> </ul>		
<b>2. PERIOD OF SERVICES</b>	<b>From: Date of Award</b>	<b>To: March 31, 2021</b>
<b>3. Work Location</b>	90 Elgin Street	
<b>4. Other Conditions /Restrains</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Specify:</b>	
<b>5. Travel</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>Specify:</b>	
<b>6. Basis of Payment</b>	<b>Limitation of Expenditure [ x ]</b>	<b>Ceiling Price [ ]</b>

UNCLASSIFIED / NON CLASSIFIÉ

24062-19-488

		<b>Firm Price [ ]</b>		
<b>7. METHOD OF PAYMENT:</b>				
<input type="checkbox"/> Single <input checked="" type="checkbox"/> Monthly <input type="checkbox"/> Milestones				
<b>8. LEVEL OF SECURITY CLEARANCE REQUIRED FOR THE CONTRACTOR'S PERSONNEL</b>				
[ x ] Secret				
<b>9. BILINGUALISM (if applicable)</b>				
[ ] English and French [ ] French [ x ] English				
<b>TA Proposal</b> <b>[For completion by Contractor]</b>				
<b>10. Estimated Cost Contract</b>				
<b>Category and Name of Proposed Resource</b>	<b>PWGSC Security File Number</b>	<b>Firm Per Diem Rate</b>	<b>Estimated # of Days</b>	<b>Total cost</b>
<b>Open Source Developer</b>	(to be filled in by consulting firm)			102,000.00\$
	95491261			
<b>Sub-total Professional Fees:</b>				102,000.00\$
<b>HST:</b>				13,260.00\$
<b>Total:</b>				115,260.00\$
<b>TA Approval</b>				
<b>11. Signing Authorities</b>				
	Signatures of Authorized Representatives		Date	
Name & Title of Individual Authorized to Sign on Behalf of Contractor: Kristian Firth, Partner			June 6th, 2020	
Name & Title of Individual Authorized to Sign Pursuant to sub-section 32(1) of the <i>Financial Administration Act</i> : <b>André Whittingham</b>			<b>6/10/2020</b>	
Name & Title of Contracting Authority:				
<b>12. Invoicing</b>				
Payment to be made based on receipt of detailed invoices for services rendered, subject to full acceptance by the Project Authority. Total of payments not to exceed the grand total.  The supplier should invoice in ¼, ½, ¾ or whole day increments. For example 1.00, 1.25, 1.50 or 1.75 days.  <b>Invoices must be sent electronically via email to:</b> <a href="mailto:CIOBFinance@tbs-sct.gc.ca">CIOBFinance@tbs-sct.gc.ca</a> , CC: <a href="mailto:Andre.Whittingham@tbs-sct.gc.ca">Andre.Whittingham@tbs-sct.gc.ca</a>				
Financial Coding: FC 200408, PAA A002, GL 4664, Fund B120				

# Algorithmic Impact Assessment Results

## Name of Respondent

W Herbert

## Job Title

senior analyst

## Department

Treasury Board Secretariat

## Branch

CIOB

## Project Title

ATIP Digital Services

## Project Phase

Implementation

[ Points: 0 ]

**Please provide a project description:**

Simple central website for Canadians to submit ATIP requests

**What is motivating your team to introduce automation into this decision-making process?  
(Check all that apply)**

Improve overall quality of decisions

Use innovative approaches

**Please check which of the following capabilities apply to your system.**

Text and speech analysis: Analyzing large data sets to recognize, process, and tag text, speech, voice, and make recommendations based on the tagging

Content generation: Analyzing large data sets to categorize, process, triage, personalize, and serve specific content for specific contexts

Impact Level: 2

Current Score: 32

Raw Impact Score: 38

Mitigation Score: 36

## Requirements Specific to Impact Level: 2

## Peer Review

At least one of: Qualified expert from a federal, provincial, territorial or municipal government institution Qualified members of faculty of a post - secondary institution Qualified researchers from a relevant non - governmental organization Contracted third - party vendor with a related specialization Publishing specifications of the Automated Decision System in a peer - reviewed

journalA data and automation advisory board specified by Treasury Board Secretariat

## Notice

Plain language notice posted on the program or service website.

## Human-in-the-loop for decisions

Decisions may be rendered without direct human involvement.

## Explanation Requirement

In addition to any applicable legislative requirement, ensuring that a meaningful explanation is provided upon request for any decision that resulted in the denial of a benefit, a service, or other regulatory action.

## Testing

Before going into production, develop the appropriate processes to ensure that training data is tested for unintended data biases and other factors that may unfairly impact the outcomes. Ensure that data being used by the Automated Decision System is routinely tested to ensure that it is still relevant, accurate, and up-to-date.

## Monitoring

Monitor the outcomes of Automated Decision Systems on an ongoing basis to safeguard against unintentional outcomes and to ensure compliance with institutional and program legislation, as well as this Directive.

## Training

Documentation on the design and functionality of the system.

## Contingency Planning

None

## Approval for the system to operate

None

[Link to the Directive on Automated Decision-Making Impact Level Requirements](#)

## Mitigation Measures

The following internal stakeholders have been consulted:

The following external stakeholders have been consulted:

A documented process is currently in place to test datasets against biases and other unexpected outcomes.



A process has been developed to document how data quality issues have been resolved during the design process.

A Gender Based Analysis Plus has been conducted on the data that will be used by the system.

Accountabilities for the design, development, maintenance, and improvements for the system have been assigned.

A process has been developed to manage any risks of having outdated or unreliable data that could be used in the system.

The data used for the system has been posted on the Open Government portal.

The system records all the recommendations or decisions made by the system.

All key decision points are identifiable in the audit trail.

A change log has been developed to detail all of the changes made to the model and to the system.

The system's audit trail indicates all of the decision points made by the system.

The system's audit trail can be used to help generate a notification of the decision (including a statement of reasons or other notifications) where required.

The audit trail identifies which version of the system was used for each decision.

The system is able to produce reasons for its decision or recommendations when required.

There is a process in place to grant, monitor, and revoke access permission to the system.

There is a mechanism to capture feedback by users of the systems.

There is a recourse process in place for clients that wish to challenge the decision.

The system enables human override of system decisions.

There is a process in place to log instances when overrides were performed.

The system's audit trail includes change control processes to record modifications to the system's operation or performance.

A concept case has been prepared for the Government of Canada Enterprise Architecture Review Board.

## Questions and Answers

### Impact Questions and Answers

**Is the project within an area of intense public scrutiny (e.g. because of privacy concerns) and/or frequent litigation?**

Yes

[ Points: +3 ]

**Are clients in this line of business particularly vulnerable?**

No

[ Points: +0 ]

**Are stakes of the decisions very high?**

No

[ Points: +0 ]

**Will this project have major impacts on staff, either in terms of their numbers or their roles?**

No

[ Points: +0 ]

**Will you require new policy authority for this project?**

Yes

[ Points: +2 ]

**The algorithm used will be a (trade) secret**

Yes

[ Points: +3 ]

**The algorithmic process will be difficult to interpret or to explain**

Yes

[ Points: +3 ]

**Will the system only be used to assist a decision-maker?**

Yes

[ Points: +1 ]

**Will the system be replacing a decision that would otherwise be made by a human?**

Yes

[ Points: +3 ]

**Will the system be replacing human decisions that require judgement or discretion?**

No

[ Points: +0 ]

**Is the system used by a different part of the organization than the ones who developed it?**

Yes

[ Points: +4 ]

**Are the impacts resulting from the decision reversible?**

Reversible

[ Points: +1 ]

**How long will impacts from the decision last?**

Impacts are most likely to be brief

[ Points: +1 ]

**Please describe why the impacts resulting from the decision are as per selected option above.**

a misdirected request would immediately be redirected to the appropriate GoC institution

**The impacts that the decision will have on the rights or freedoms of individuals will likely be:**

Little to no impact

[ Points: +1 ]

**Please describe why the impacts resulting from the decision are (as per selected option above).**

does not prevent requester from exercising their right to information

**The impacts that the decision will have on the health and well-being of individuals will likely be:**

Little to no impact

[ Points: +1 ]

**Please describe why the impacts resulting from the decision are (as per selected option above)**

n/a

**The impacts that the decision will have on the economic interests of individuals will likely be:**

Little to no impact

[ Points: +1 ]

**Please describe why the impacts resulting from the decision are (as per selected option above)**

n/a

**The impacts that the decision will have on the ongoing sustainability of an environmental ecosystem, will likely be:**

Little to no impact

[ Points: +1 ]

**Please describe why the impacts resulting from the decision are (as per selected option above)**

n/a

**Will the Automated Decision System use personal information as input data?**

No

[ Points: +0 ]

**What is the highest security classification of the input data used by the system? (Select one)**

None

[ Points: +0 ]

**Who controls the data?**

Federal government

[ Points: +1 ]

**Will the system use data from multiple different sources?**

Yes

[ Points: +4 ]

**Will the system require input data from an Internet- or telephony-connected device? (e.g.**

Internet of Things, sensor)

No

[ Points: +0 ]

**Will the system interface with other IT systems?**

Yes

[ Points: +4 ]

**Who collected the data used for training the system?**

Your institution

[ Points: +1 ]

**Who collected the input data used by the system?**

Your institution

[ Points: +1 ]

**Will the system require the analysis of unstructured data to render a recommendation or a decision?**

Yes

[ Points: 0 ]

**What types of unstructured data? (Check all that apply)**

Audio and text files

[ Points: +2 ]

## **Mitigation Questions and Answers**

**Internal Stakeholders (Strategic policy and planning, Data Governance, Program Policy, etc.)**

Yes

[ Points: +1 ]

**External Stakeholders (Civil Society, Academia, Industry, etc.)**

Yes

[ Points: +1 ]

**Do you have documented processes in place to test datasets against biases and other unexpected outcomes? This could include experience in applying frameworks, methods, guidelines or other assessment tools.**

Yes

[ Points: +2 ]

**Is this information publicly available?**

No

[ Points: +0 ]

**Have you developed a process to document how data quality issues were resolved during the design process?**

Yes

[ Points: +1 ]

**Is this information publicly available?**

No

[ Points: +0 ]

**Have you undertaken a Gender Based Analysis Plus of the data?**

Yes

[ Points: +1 ]

**Is this information publicly available?**

No

[ Points: +0 ]

**Have you assigned accountability in your institution for the design, development, maintenance, and improvement of the system?**

Yes

[ Points: +2 ]

**Do you have a documented process to manage the risk that outdated or unreliable data is used to make an automated decision?**

Yes

[ Points: +2 ]

**Is this information publicly available?**

No

[ Points: +0 ]

**Is the data used for this system posted on the Open Government Portal?**

Yes

[ Points: +2 ]

**Does the audit trail identify the authority or delegated authority identified in legislation?**

No

[ Points: +0 ]

**Does the system provide an audit trail that records all the recommendations or decisions made by the system?**

Yes

[ Points: +2 ]

**Are all key decision points identifiable in audit trail?**

Yes

[ Points: +2 ]

**Are all key decision points within the automated system's logic linked to the relevant legislation, policy or procedures?**

No

[ Points: +0 ]

**Do you maintain a current and up to date log detailing all of the changes made to the model and the system?**

Yes

[ Points: +2 ]

**Does the system's audit trail indicate all of decision points made by the system?**

Yes

[ Points: +1 ]

**Can the audit trail generated by the system be used to help generate a notification of the**

**decision (including a statement of reasons or other notifications) where required?**

Yes

[ Points: +1 ]

**Does the audit trail identify precisely which version of the system was used for each decision it supports?**

Yes

[ Points: +2 ]

**Does the audit trail show who an authorized decision-maker is?**

No

[ Points: +0 ]

**Is the system able to produce reasons for its decisions or recommendations when required?**

Yes

[ Points: +2 ]

**Is there a process in place to grant, monitor, and revoke access permission to the system?**

Yes

[ Points: +1 ]

**Is there a mechanism to capture feedback by users of the system?**

Yes

[ Points: +1 ]

**Is there a recourse process established for clients that wish to challenge the decision?**

Yes

[ Points: +2 ]

**Does the system enable human override of system decisions?**

Yes

[ Points: +2 ]

**Is there a process in place to log the instances when overrides were performed?**

Yes

[ Points: +1 ]

**Does the system's audit trail include change control processes to record modifications to the system's operation or performance?**

Yes

[ Points: +2 ]

**Have you prepared a concept case to the Government of Canada Enterprise Architecture Review Board?**

Yes

[ Points: +1 ]

**Have you completed a Privacy Impact Assessment or revised an existing one?**

Yes

[ Points: +1 ]

**Does your system reflect Privacy by Design principles?**

Yes

[ Points: +1 ]

# Résultats de l'Évaluation de l'Incidence Algorithmique

Nom de la personne sondée

W Herbert

Titre du poste

analyste principal

Ministère

Secrétariat du Conseil du Trésor  
Direction

BDPI

Titre du projet

Services numériques d'AIPRP

Phase du projet

Implémentation

[ Points: 0 ]

**Veuillez fournir une description du projet :**

Site Web central et simple permettant aux Canadiens de soumettre des demandes d'AIPRP

**Qu'est-ce qui motive votre équipe à introduire l'automatisation dans ce processus décisionnel?  
(Cochez toutes les réponses qui s'appliquent.)**

Amélioration de la qualité générale des décisions

Utilisation d'approches novatrices

**Veuillez indiquer laquelle des capacités suivantes s'applique à votre système.**

Analyse du texte et de la parole: Analyser de vastes jeux de données pour reconnaître, traiter et étiqueter le texte, la parole, la voix et faire des recommandations en fonction du marquage.

Génération de contenu: Analyser de vastes jeux de données pour créer des catégories, traiter, trier, personnaliser et servir un contenu spécifique destiné à des contextes particuliers.

Niveau d'incidence: 2

Cote actuelle: 32

Cote d'incidence brute: 38

Cote d'atténuation: 36

## Exigences spécifiques au niveau d'incidence : 2

### Examen par les pairs

Au moins l'une des suivantes: Expert qualifié d'une institution gouvernementale fédérale, provinciale, territoriale ou municipale. Membres qualifiés d'une faculté d'un établissement



postsecondaire. Chercheurs qualifiés d'une organisation non gouvernementale pertinente. Tiers fournisseur à forfait avec une spécialisation connexe. Publication des spécifications du système décisionnel automatisé dans une revue à comité de lecture. Un comité consultatif des données spécifié par le Secrétariat du Conseil du Trésor.

## **Avis**

Avis en langage simple publié par l'entremise du site Web du programme ou du service.

## **Maillon humain de la prise de décisions**

Des décisions peuvent être prises sans participation humaine directe.

## **Exigences en matière d'explication**

En plus de toute exigence législative applicable, s'assurer qu'une explication significative est fournie sur demande avec toute décision qui conduit à un refus de prestation, de service ou autre mesure réglementaire.

## **Mise à l'essai**

Avant d'amorcer la production, élaborer les processus appropriés afin de veiller à ce que les données d'apprentissage soient évaluées pour la présence de biais imprévus dans les données et d'autres facteurs qui pourraient influencer injustement les résultats. Veiller à ce que les données utilisées par le système décisionnel automatisé soient régulièrement mises à l'essai afin de veiller à ce qu'elles soient toujours pertinentes, exactes et à jour.

## **Surveillance**

Surveiller les résultats des systèmes décisionnels automatisés afin de protéger contre les résultats imprévus et d'assurer la conformité avec les dispositions législatives institutionnelles et relatives aux programmes, ainsi qu'avec la présente Directive.

## **Formation**

Documents sur la conception et la fonctionnalité du système.

## **Planification des mesures d'urgence**

Aucune

## **Approbation de l'exploitation du système**

Aucune

[Lien vers les Exigences par niveau d'incidence de la Directive sur la prise de décision automatisée](#)

## **Mesures d'atténuation**

Les intervenants internes suivants ont été consultés:

Les intervenants externes suivants ont été consultés:

Un processus documenté est actuellement en place pour tester les ensembles de données par rapport aux biais et autres résultats inattendus.

Un processus a été élaboré pour documenter la façon dont les problèmes de qualité des données ont été résolus au cours du processus de conception.

Une analyse comparative entre les sexes a été effectuée sur les données qui seront utilisées par le système.

Les responsabilités relatives à la conception, à l'élaboration, à l'entretien et aux améliorations du système ont été attribuées.

Un processus a été mis au point pour gérer le risque que des données désuètes ou non fiables puissent être utilisées dans le système.

Les données utilisées pour le système ont été affichées sur le portail du Government Ouvert.

Le système enregistre toutes les recommandations ou décisions prises par le système.

Tous les points de décision clés sont identifiables dans la piste d'audit.

Un journal des modifications a été élaboré pour détailler toutes les modifications apportées au modèle et au système.

La piste de vérification du système indique tous les points de décision pris par le système.

La piste d'audit générée par le système peut être utilisée pour générer des avis, y compris un exposé des motifs.

La piste de vérification indique quelle version du système a été utilisée pour chaque décision.

Le système est en mesure de produire les motifs de sa décision ou de ses recommandations au besoin.

Un processus est en place pour accorder, surveiller et révoquer l'autorisation d'accès au système.

Il existe un mécanisme pour recueillir les commentaires des utilisateurs des systèmes.

Un processus de recours est en place pour les clients qui souhaitent contester la décision.

Le système permet à l'homme de passer outre aux décisions du système.

Il y a un processus en place pour consigner les cas où des dérogations ont été effectuées.

La piste de vérification du système comprend des processus de contrôle des changements pour enregistrer les modifications apportées au fonctionnement ou au rendement du système.

Un dossier conceptuel a été préparé pour le Comité d'examen de l'architecture d'entreprise du gouvernement du Canada.

Une évaluation des facteurs relatifs à la vie privée a été effectuée ou une EFVP existante a été révisée.

Le système a été conçu en tenant compte des principes de la protection de la vie privée par la conception.

## Questions et réponses

### Questions et réponses liées aux risques

**Le projet fait-il l'objet d'un examen public approfondi (e.g.: en raison de préoccupations liées à la protection de la vie privée) et/ou de litiges fréquents?**

Oui

[ Points: +3 ]

**Les clients de ce secteur d'activité sont-ils particulièrement vulnérables?**

Non

[ Points: +0 ]

**Les enjeux des décisions de ce programme sont-ils très élevés?**

Non

[ Points: +0 ]

**Ce projet aura-t-il d'importantes répercussions sur le personnel, que ce soit en termes de nombre ou de rôle?**

Non

[ Points: +0 ]

**Aurez-vous besoin d'une nouvelle autorisation en termes de politiques pour ce projet ?**

Oui

[ Points: +2 ]

**L'algorithme utilisé sera un secret (commercial)**

Oui

[ Points: +3 ]

**Le processus algorithmique sera difficile à interpréter ou à expliquer**

Oui

[ Points: +3 ]

**Le système automatisera-t-il ou remplacera-t-il les décisions humaines qui exigent du jugement ou de la discrétion?**

Oui

[ Points: +1 ]

**Le système automatisera-t-il ou remplacera-t-il les décisions humaines qui exigent du jugement ou de la discrétion?**

Oui

[ Points: +3 ]

**Le système automatisera-t-il ou remplacera-t-il les décisions humaines qui exigent du jugement ou de la discrétion?**

Non

[ Points: +0 ]

**Le système est-il utilisé par une partie de l'organisation différente de celle à laquelle appartiennent ceux qui l'ont développé?**

Oui

[ Points: +4 ]

**Les incidences découlant de la décision sont-elles réversibles?**

Réversible

[ Points: +1 ]

**Combien de temps les incidences de la décision dureront-elles?**

Les incidences risquent fort probablement d'être brèves

[ Points: +1 ]

**Veillez indiquer pour quelle raison les incidences découlant de la décision sont (selon l'option sélectionnée ci-dessus).**

une demande mal acheminée serait immédiatement redirigée vers l'institution appropriée du GC

**Les incidences de la décision sur les droits ou libertés des personnes seront probablement les suivantes :**

Incidence faible ou nulle

[ Points: +1 ]

**Veillez indiquer pour quelle raison les incidences découlant de la décision sont (selon l'option sélectionnée ci-dessus).**

n'empêche pas le demandeur d'exercer son droit à l'information

**Les incidences de la décision sur la santé et le bien-être des personnes seront probablement les suivantes :**

Incidence faible ou nulle

[ Points: +1 ]

**Veillez indiquer pour quelle raison les incidences découlant de la décision sont (selon l'option sélectionnée ci-dessus).**

s/o

**Les incidences de la décision sur les intérêts économiques des personnes seront probablement les suivantes :**

Incidence faible ou nulle

[ Points: +1 ]

**Veillez indiquer pour quelle raison les incidences découlant de la décision sont (selon l'option sélectionnée ci-dessus).**

s/o

**Les incidences de la décision sur la pérennité d'un écosystème environnemental seront probablement les suivantes :**

Incidence faible ou nulle

[ Points: +1 ]

**Veillez indiquer pour quelle raison les incidences découlant de la décision sont (selon l'option sélectionnée ci-dessus).**

s/o

**Le système de décision automatisé utilisera-t-il des renseignements personnels comme données d'entrée?**

Non

[ Points: +0 ]

**Quelle est la classification de sécurité la plus élevée des données d'entrée utilisées par le système? (N'en choisir qu'une seule)**

Aucun

[ Points: +0 ]

**Qui contrôle les données?**

Gouvernement fédéral

[ Points: +1 ]

**Les données utilisées par le système proviendront-elles de plusieurs sources différentes?**

Oui

[ Points: +4 ]

**Le système aura-t-il besoin de données d'entrée provenant d'un appareil connecté à Internet ou à la téléphonie? (P. ex., internet des objets, un Capteur)**

Non

[ Points: +0 ]

**Le système interagira-t-il avec d'autres systèmes des TI?**

Oui

[ Points: +4 ]

**Qui a recueilli les données utilisées pour préparer le système?**

Votre institution

[ Points: +1 ]

**Qui a recueilli les données d'entrée utilisées par le système?**

Votre institution

[ Points: +1 ]

**Le système exigera-t-il l'analyse de données non structurées pour faire une recommandation ou prendre une décision?**

Oui

[ Points: 0 ]

**De quel type de données non structurées s'agit-il (Cochez toutes les réponses qui s'appliquent)?**

Fichiers audio et textuels

[ Points: +2 ]

## **Questions et réponses liées aux mesures d'atténuation**

**Intervenants internes (politique et planification stratégiques, gouvernance des données, politique du programme, etc.)**

Oui

[ Points: +1 ]

**Intervenants externes (société civile, universités, industrie, etc.)**

Oui

[ Points: +1 ]

**Disposez-vous de processus documentés pour tester les jeux de données en fonction de biais et d'autres résultats inattendus? Par exemple, ceci pourrait inclure une expérience dans l'application de cadres, de méthodes, de lignes directrices ou d'outils d'évaluation.**

Oui

[ Points: +2 ]

**Cette information est-elle publiquement disponible?**

Non

[ Points: +0 ]

**Avez-vous élaboré un processus permettant de documenter la façon dont les problèmes de qualité des données qui seront résolus pendant le processus de conception?**

Oui

[ Points: +1 ]

**Cette information est-elle publiquement disponible?**

Non

[ Points: +0 ]

**Avez-vous entrepris une analyse comparative entre les sexes plus des données?**

Oui

[ Points: +1 ]

**Cette information est-elle publiquement disponible?**

Non

[ Points: +0 ]

**Dans votre établissement, existe-t-il des responsables de la conception, du développement, de la maintenance et de l'amélioration du système?**

Oui

[ Points: +2 ]

**Disposez-vous d'un processus documenté pour gérer le risque que des données périmées ou non fiables soient utilisées pour prendre une décision automatisée?**

Oui

[ Points: +2 ]

**Cette information est-elle publiquement disponible?**

Non

[ Points: +0 ]

**Les données utilisées pour ce système seront-elles affichées sur la portail du gouvernement ouvert?**

Oui

[ Points: +2 ]

**La piste de vérification permet-elle de déterminer les pouvoirs ou les pouvoirs délégués prévus par la loi?**

Non

[ Points: +0 ]

**Le système fournit-il une piste de vérification qui enregistre toutes les recommandations ou décisions prises par le système?**

Oui

[ Points: +2 ]

**Est-ce que tous les points de décision clés peuvent être identifiés dans la piste de vérification?**

Oui

[ Points: +2 ]

**Est-ce que toutes les décisions clés sont liées à une législation, politique ou à une procédure pertinente?**

Non

[ Points: +0 ]

**Avez-vous un journal détaillant toutes les modifications apportées au modèle et au système?**

Oui

[ Points: +2 ]

Oui

[ Points: +1 ]

**La piste de vérification générée par le système peut-elle être utilisée pour aider à produire une notification de la décision (y compris un énoncé des motifs ou une autre notification) au besoin?**

Oui

[ Points: +1 ]

**La piste de vérification permet-elle de déterminer précisément quelle version du système a été utilisée pour chaque décision qu'elle appuie?**

Oui

[ Points: +2 ]

**La piste de vérification indique-t-elle qui est le décideur autorisé?**

Non

[ Points: +0 ]

**Le système est-il en mesure de justifier ses décisions ou ses recommandations au besoin?**

Oui

[ Points: +2 ]

**Avez-vous un processus en place pour accorder, surveiller et révoquer l'autorisation d'accès au système?**

Oui

[ Points: +1 ]

**Avez-vous un mécanisme pour recueillir les commentaires des utilisateurs du système?**

Oui

[ Points: +1 ]

**Avez-vous un processus de recours prévu ou établi pour les clients qui souhaitent contester la décision?**

Oui

[ Points: +2 ]

**Le système permet-il à une personne de passer outre aux décisions du système?**

Oui

[ Points: +2 ]

**Avez-vous un processus en place pour consigner les cas où des dérogations ont été effectuées?**

Oui

[ Points: +1 ]

**Avez-vous des processus en place pour enregistrer les modifications apportées au fonctionnement ou au rendement du système?**

Oui

[ Points: +2 ]

**Avez-vous préparé un dossier conceptuel à l'intention du Comité d'examen de l'architecture d'entreprise du gouvernement du Canada?**

Oui

[ Points: +1 ]

**Avez-vous entrepris une évaluation des facteurs relatifs à la vie privée ou révisé une évaluation existante?**

Oui

[ Points: +1 ]

**Votre système reflète-t-il les principes de la 'Protection de la vie privée dès la conception'?**

Oui

[ Points: +1 ]